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On Inflammatory Affections and Ulceration of the Stomach.

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(From the Edinburgh Medical and Surgical Journal.)

Acute inflammation of the stomach is not a common disease in this country ; and, when it does occur, the symptoms are so severe and so well defined, as immediately to indicate the nature of the affection. But the stomach is liable to inflammatory action in a chronic form, which often advances so slowly and insidiously, that the dangerous nature of it may be overlooked, until it arrives at that period of its progress in which it assumes the characters of organic and hopeless disease. In the early stages of this affection, the prominent symptoms are often such as merely indicate derangement of the functions of the stomach, and are consequently very apt to be included under the general term Dyspepsia. The patient complains of acidity, eructations, flatulence, and oppression of the stomach after eating. There is usually pain, but it varies very much both in degree and in its duration. In many cases it is only complained of after eating, continues in considerable severity while the process of digestion is going on, and subsides after the process is completed. The appetite in these cases is frequently unimpaired ; but the patient is afraid of taking food on account of the pain which is induced by it. In other cases, there is permanent uneasiness, but it is aggravated by taking food ; frequently there is tenderness of the epigastiric region on pressure ; and sometimes there is pain in the back, at the part corresponding with the seat of the stomach. Vomiting is apt to occur ; but in the early stages it is only occasional, and is ascribed to incidental causes. Afterwards it becomes more frequent, but still without that degree of regularity which appears to indicate serious disease. By great

for five months, vomiting after meals ; and death, by gradual wasting, without any other symptom. Nothing could be felt in the region of the stomach by the most careful examination. On dissection, the stomach was found adhering intimately to the concave surface of the liver ; and an alcer at this place had perforated the stomach, and penetrated a considerable way into the substance of the liver. There was also ulceration in the neighbourhood of the cardia. A man, mentioned by Pinel, had great acidity of the stomach, and other dyspeptic symptoms, with occasional attacks of acute pain, and afterwards vomiting and gradual wasting. A tumour was felt in the epigastric region. The pain became more acute, the smallest quantity of food producing great uneasiness ; and he died exhausted, after six months. The omentum was found hard, red and fleshy, and gathered up into a mass under the great arch of the stomach. The mucous membrane of the stomach was much destroyed ; and there was an ulcer three inches in length near the pylorus. Another course of symptoms occurs in a case related by Frank. A man, aged 50, was seized, after a violent exertion, with copious vomiting of blood, followed by discharge of blood by stool. These symptoms continued several weeks, and then ceased. He then had dyspeptic symptoms, debility and emaciation. His appetite was good, but he had great uneasiness after eating ; and some tenderness was felt in the right hypochondrium, with difficulty of lying on the right side. He became gradually more and more emaciated ; and at last had some vomiting and dropsical symptoms, and died after seven or eight months. On dissection, the liver was found pale, hard, and much diminished in size. The small curvature of the stomach adhered to it ; and at the place of adhesion, there was an ulcer five inches long and two broad, which perforated the stomach, and penetrated into the substance of the liver.

An important variety in the history of the disease occurs in those cases which are distinguished merely by pain of the stomach and dyspeptic symptoms, without vomiting, or any symptom distinctly indicating serious disease. A man mentioned by Chardel had dyspepsia, and acute pain after eating, which subsided when the process of digestion was completed. By taking very mild food in small quantities, he felt less uneasiness ; but after some time, without any change in the symptoms, he lost strength so much, that he was confined to bed. His appetite continued, but he was afraid to satisfy it. He had very little nausea, and did not vomit above two or three times during his illness, which continued many months. On dissection, there was found thickening of the coats of the stomach, at the upper

part, without ulceration; and enlargement of the lymphatic glands in the neighbourhood of the stomach. A man mentioned by the same writer had pain in the right hypochondrium, loss of appetite, with great acidity and gradual wasting. He had no vomiting, but a good deal of diarrhoea, and died, gradually exhausted, after a year; the stools at last having become black and bloody. The stomach was found adhering both to the colon and the diaphragm. At the part of adhesion to the diaphragm, a portion of the stomach was destroyed by ulceration; and by means of the adhesion, a part of the diaphragm supplied the place of the part that was destroyed. A woman, mentioned by Pinel, had laborious digestion, pain of the stomach after eating, and gradual wasting. She had nausea, but very seldom vomited, and died after several months; for a short time before death, the vomiting had been rather more frequent. The stomach adhered to the liver and to the pancreas. The mucous membrane was irregularly destroyed and ulcerated. At the point of adhesion to the liver, the parietes were perforated by ulceration. The pyloric extremity was considerably thickened; the omentum was thickened and indurated.

In this insidious and dangerous affection, the symptoms appear to vary exceedingly, according to the extent of the part that is affected; and this seems to admit of remarkable varieties. In a case by Dr. Carmichael Smyth, it was of wonderfully small extent, and the symptoms were so slight, that they had scarcely been attended to, till the fatal event took place unexpectedly. A young lady, aged 15, had for many months complained occasionally of pain at the stomach, but so slight that no attention had been paid to it, until one evening she was seized with violent pain and vomiting, and died in 24 hours with symptoms of peritoneal inflammation. On dissection, extensive peritoneal inflammation was met with, and considerable effusion of turbid fluid in the cavity of the abdomen. In the anterior part of the stomach, there was a round ulcer, no larger than a sixpence, with hard callous edges; and the coats of the stomach at the seat of it were considerably thickened. On minute examination, it was found that the ulcer had entirely penetrated the stomach by an opening sufficient to admit a quill. The other parts of the stomach were healthy.

In this remarkable case, there is every reason to suppose that the fatal attack had been connected with the perforation of the stomach, and the escape of its contents into the cavity of the peritoneum. Many cases of the same kind are on record, differing in their previous history, but presenting similar symptoms in the fatal attack. M. Gerard has collected about seven-

teen examples of it, in a Memoir "*Des Perforations Spontanees de l'Estomac.*" In some of these cases, there had previously been chronic vomiting, and other symptoms indicating serious disease in the stomach; but in others, the previous symptoms were slight and obscure, and some had enjoyed tolerably good health. The fatal symptoms commenced with a sudden attack of most acute pain in the epigastric region, afterwards extending over the abdomen—sometimes, but not always, with vomiting. The pain continued with great anxiety, oppression, and every appearance of extreme suffering. The abdomen was, in some cases, distended and tender—in others contracted, and drawn into balls; and death took place, with rapid sinking, in periods of from twelve to twenty-four hours. On dissection, the stomach was found penetrated by ulceration of various extent; and articles of food and drink were found in the cavity of the peritoneum. The perforation seemed, in general, to be connected with ulceration of some standing, as appeared from its thickened and retorted edges, with thickening of the coats of the stomach, and adhesion to the neighbouring parts; and, in some cases, there was extensive organic disease at the part which had given way. In some of the cases, peritoneal inflammation had supervened; but in others, no morbid appearance was remarked among the intestines. Several cases of the same kind are described by Dr. Crampton and Mr. Travers, in the *Medico-Chirurg. Trans.*, vol. viii. The following is the most remarkable case that has occurred to me; and it is chiefly important, from the slight and obscure nature of the previous symptoms.

CASE II.—A woman, aged 50, had been for several years in bad health:—her principal complaints were referred to the region of the uterus, and the os uteri was felt to be considerably indurated. She had also been liable to pain in the stomach, capricious appetite, and occasional vomiting; but these complaints had not been so severe or regular as to excite much attention, and had always been considered as of secondary importance, until she was suddenly seized with most violent pain, referred to a small spot in the epigastric region, accompanied by vomiting, and followed by severe pain and tension of the whole abdomen, great prostration of strength, and small, feeble, rapid pulse. She died in eighteen hours from the attack, the pain having continued unabated till a very short time before death. *Dissection.*—The stomach was healthy in its whole anterior aspect; but in the posterior part of it, there was a portion, about three inches in extent, which was indurated, and nearly half an inch in thickness. In the center of this portion there was a round opening, about one-third of an inch in diame-

ter, which entirely perforated the substance of the part. Internally, the opening was smooth, and rounded at the edges; and the smoothness extended to very near its external aperture, where a thin membrane had recently given way, so as to make the aperture ragged. The stomach, in other respects, was healthy. There was a good deal of fluid in the cavity of the abdomen, which seemed to have escaped from the stomach. There was scirrhus of the neck of the uterus, with considerable enlargement.

A lady, mentioned in the *Journal General de Medicine* for August 1821, after having been dyspeptic for several years, was seized with severe pain, extending from the epigastric region towards the left kidney, accompanied by cold shivering, great anxiety, dyspnœa, and prostration of strength. The symptoms soon subsided, but returned on the following day, after taking food; and her principal distress was referred to a small circumscribed spot in the epigastric region. The attack returned in the same manner, after taking food, for four days, subsiding after some time, and leaving her in the interval free from pain. On the fifth day, the symptoms returned in the usual manner, but did not subside, and she died in twenty hours. On dissection, there was found peritoneal inflammation, with effusion in the abdomen, of a brown fluid, mixed with portions of food. The kidneys were natural. In the anterior part of the stomach, there was a round opening, nine lines in diameter. On the margin of it there was slight inflammation; but the stomach, in other respects, was healthy.—A woman, mentioned in the *Medical Repository* for March, 1823, was liable to dyspeptic complaints, and was seized occasionally with pain in the stomach. It obliged her to sit down and rub her stomach with her hand for a few minutes, when it subsided, and she was able immediately to resume her work as a servant. One day, while engaged in her usual employment, she was seized with excruciating pain in the stomach, without vomiting or any other symptom. It continued through the whole day, and she died about midnight. On dissection, a viscid fluid, mixed with articles of food, was found in the abdomen. The stomach was perforated near the cardia, by an opening three-fourths of an inch in diameter internally, and one-third externally. The part was considerably thickened, and adhered to the liver.

To these observations may be added the remarkable case of Admiral Wassenaer, mentioned by Boerhaave, who died suddenly in the act of vomiting, or rather attempt to vomit, soon after he had dined. The lower part of the œsophagus had giv-

en way at the seat of an ulcer, and all the food and drink which he had taken at dinner were found in the cavity of the thorax.

Sudden rupture, subsequent upon chronic and often slight ulceration, occurs also in the intestinal canal, and with symptoms very similar to those now referred to in this affection of the stomach. For two interesting examples of this kind, presenting the affection in two very different forms, I am indebted to my friend Mr. William Wood.

CASE III.—A stout man, aged 36, who had previously enjoyed good health, was suddenly seized, while engaged at his usual employment, with violent pain in the abdomen, and vomiting. The pulse was not affected. The case was considered as ileus, and blood-letting and the other usual remedies were employed, but without benefit:—the symptoms continued, the pain extending over the whole abdomen—the pulse became quick and feeble, with rapid sinking of the vital powers, and he died in sixteen or eighteen hours. On dissection, nothing could be discovered in the cavity of the abdomen, except a considerable quantity of a thin feculent fluid; and it was only after a long and minute examination that a small opening was discovered in the lower part of the duodenum, capable of transmitting a large quill. It had its origin internally, in an ulcer of the mucous membrane, which, though of small extent, was considerably larger than the perforation.

The following case, by the same able practitioner, is still more remarkable, from the extent of organic disease which was met with, the patient having previously enjoyed good health, except habitual costiveness.

CASE IV.—A gentleman, aged 60, on 6th December 1810, was sitting, after dinner, reading aloud to some friends who were with him, when he suddenly complained of most violent pain at the lower part of the abdomen, immediately above the os pubis, and vomited repeatedly. His countenance became pale, and his hands rather cold; and his pulse, when Mr. Wood saw him, was feeble, and not frequent. The most judicious practice was employed without benefit; the pain continued—the vomiting recurred at intervals—the pulse became very frequent and feeble, with rapid sinking of the vital powers—and he died in about six hours. On dissection, much feculent matter was found in the cavity of the abdomen, which was found to have escaped through a perforation of the colon, at its lower part, a little above its junction with the rectum. The opening was larger than a shilling, and was surrounded by a mass of induration; and, for several inches, the intestine was hard and thickened, and, on its internal surface, extensively ulcerated. At the lower part of

this diseased portion, from two to three inches below the rupture, the intestine was contracted by a hard ring, so as scarcely to transmit a finger.

The remarkable feature in these cases, is the perforation having taken place without any previous illness. I have formerly described several cases in which such perforation took place after symptoms, which had distinctly indicated disease of the mucous membrane of the bowels. The affection appears in a third form, occurring in the course of a febrile disease, without symptoms which had previously indicated disease in the bowels. Many cases of this kind are mentioned by the French pathologists. In the *Archives General de Medecine* for January 1823, M. Louis has described some of such interest, that I shall make no apology for introducing a report of them, as an Appendix to this paper. (See page 142.)

On the other hand, it is remarkable what extent of disease may exist in the stomach, and yet the disease be drawn out to a great length, and with slight and obscure symptoms. A woman mentioned by Pinel received an injury on the stomach, from a thrust by the head of a goat, followed by tenderness of the epigastric region, which continued without any other symptom for two years. She then had more fixed pain, and a tumour appeared, which was tender to the touch. At first it was two inches in diameter, but soon increased to double that size. After a few days this tumour suddenly disappeared, during a fit of coughing, leaving only a tenderness of the epigastric region. She then had cold shiverings, followed by heat, great weakness and emaciation, and death, after four months from the time when the tumour appeared. For some time before death, the pain of the stomach had been more acute, with difficult breathing, hiccup, and fetid eructation; but no other remarkable interruption of the functions of the stomach. The appetite had continued tolerably good through the whole course of the disease, and the bowels regular, except immediately after the disappearance of the tumour, when there was diarrhœa. On dissection, the intestines were found inflamed, and adhering extensively to the omentum, and to the parietes of the abdomen. The stomach adhered to the liver and to the pancreas, at the small curvature; the coats were an inch in thickness, and the large curvature adhered to the colon. The mucous membrane of the stomach was covered by a fetid puriform matter; and a burrowing cavity was found, which admitted the finger, and conducted it to the part on the small curvature where there was the adhesion to the liver. There was also a communication betwixt the stomach and the ileum.

In this remarkable case, there had evidently been most extensive inflammatory action, and a collection of matter had probably taken place betwixt the coats of the stomach, at the place where the burrowing cavity was met with. It had probably formed the tumour which was felt externally, and disappeared so suddenly, the abscess bursting into the stomach, and the matter being discharged by the bowels.

In most of the cases now referred to, the disease seems to have been originally simple inflammation, in a very chronic form, terminating by its usual consequences—thickening, adhesion, and chronic ulceration. But another modification of the affection occurs in the same parts, and with nearly the same symptoms, under the form of tubercular disease, with the unhealthy ulceration which usually results from it. A woman mentioned by Morgagni, was affected with pain of the stomach for several years. She then had loss of appetite, nausea, fever, and vomiting of blood. The epigastrium was tender to the touch, but no hardness could be discovered. These attacks occurred frequently, and were relieved by bleeding; and several times she seemed to be getting well. A tumour then appeared above each clavicle, with difficult breathing and severe headach. She still had uneasiness in the stomach, but no return of the vomiting of blood, and died, gradually exhausted. On dissection, the coats of the stomach were found much thickened, and very soft. Its cavity contained a considerable quantity of a fetid pultacious matter, which seemed to have been discharged from the posterior part of it, where the coats were so much thickened, as to form a tumour projecting into the cavity. This tumour was ulcerated and gangrenous, and resembled a ruptured abscess of the most unhealthy kind. The pancreas was hardened; the other parts in the abdomen were sound. The tumours above the clavicles were masses of diseased glands.

In the following case, again, the disease had more the appearance of the cancerous ulceration. It is the most remarkable example that has occurred to me of destruction of the stomach by ulceration.

CASE V.—A lady aged 49, had been in bad health through the winter 1811–12, complaining chiefly of general weakness, and a constant uneasiness across the epigastric region, with occasional attacks of acute pain towards the left side. In May 1812, she began to be affected with vomiting, which continued from that time, and became more and more urgent. I saw her in July, and found her much emaciated and reduced in strength, so as to be confined to bed. She complained of an obtuse pain in the epigastric region, where considerable hardness was felt; and

she vomited a portion of every thing she took, sometimes immediately after taking it, and sometimes a considerable time after. The pulse was weak, and rather frequent. She continued with very little change till the beginning of September, when the vomiting subsided, and she was completely free from it for more than a fortnight. During this time she was affected with diarrhœa; her strength sunk, and she died on the 23d, the vomiting having returned three or four days before her death, though with less severity than before. During the period when she was free from vomiting, she took food and drink of various kinds, and in very considerable quantities, and continued to do so till a few hours before her death. *Dissection.*—On opening the abdomen, and looking for the stomach, a large irregular opening presented itself, which was found to lead into the cavity of the stomach, a large extent of the great arch being entirely destroyed. On the left side, in the region of the spleen, there was found a large irregular mass, which appeared to consist of an enlarged and diseased spleen, and the remains of the great arch of the stomach, so blended into one mass, that it was impossible to distinguish one part from another. In the substance of it there was a cyst full of very fetid matter. This mass was attached to the cardia by a narrow neck, which remained of the coats of the stomach at that place; and when the parts were taken out and displayed by suspending the stomach by the cardia and the pylorus, the appearances were very remarkable. When stretched out in this manner, about one half of the stomach, at the pyloric extremity, was sound and healthy. This portion was attached to the cardia by a narrow portion of the small curvature which remained; and, by another small portion of the great curvature, the mass now referred to hung down on the left side. The remainder of the stomach consisting of the left side and lower part of the great arch, was entirely wanting, to such an extent, that when the parts were extended in the manner now mentioned, it appeared that nearly one half of the stomach had been destroyed. There was reason to believe, that the part which seemed to be wanting was involved in the diseased mass on the left side, and that the sound parts had been separated from this portion, by a line of ulceration of such extent, that the sound extremity remained attached to the cardia only by a portion about two inches in breadth, which remained of the small arch. The ulcerated edge, where the separation had taken place, was studded with numerous hard tubercles, like the edges of a cancerous ulcer. The pancreas was hard, the liver pale and soft, the other viscera were healthy.

Under the various forms illustrated by the cases which have been referred to, this dangerous affection of the stomach may be going on, with much diversity in the symptoms. They may be severe, and indicating serious disease, or they may be such as, without very great attention, are likely to be considered as merely dyspeptic. There may be hardness in the region of the stomach, or there may be nothing to be discovered by the most careful examination—and it is, in fact, extremely difficult to propose any rules by which the disease can be distinguished in its earlier stages. It may be suspected, when there is either permanent uneasiness in the region of the stomach, or pain recurring with regularity after meals, not prevented by every attention to the quality of the articles taken—when there is tenderness on pressure, especially if the pain and tenderness be always referred to a particular spot of small extent, and distinctly defined—when, along with these symptoms, there is vomiting occurring at short periods after meals, and after articles of the mildest quality—and when, without any very urgent or defined symptoms, a patient with affections of the stomach is becoming progressively weakened and emaciated, in a manner which his symptoms, if considered as merely dyspeptic, could not account for. It must be confessed, however, that none of these symptoms are entirely to be relied on—that most or all of them may exist in connection with a state of the stomach which is merely dyspeptic—and that, under a more serious form, they may even go on to a fatal termination, with every appearance of extensive disease, and yet nothing be discovered by the most careful examination. A woman mentioned by Chardel had been affected, for eight months, with habitual vomiting, every article of food being brought up soon after it was taken. She was then suddenly seized with violent pain of the stomach, followed by copious vomiting of blood, and died in fifteen minutes. The stomach was found full of coagulated blood, but no disease could be discovered in its structure, or in any of the neighbouring parts; and even the source of the blood could not be ascertained. In another case, also of long standing, in which there were frequent attacks of vomiting of blood, and death by gradual exhaustion, he could detect nothing but some varicose veins upon the mucous membrane of the stomach.

Upon the whole, it appears that this important part of pathology is still involved in much obscurity; but it is of much importance to be kept in mind, as an established principle, that symptoms which, at first sight, appear to be merely dyspeptic, often depend upon chronic inflammation of the stomach. Where the diagnosis is so difficult, indeed, the practice must be

often empirical ; but, when dyspeptic symptoms are unusually severe, or unusually obstinate, or are accompanied by an unusual degree of emaciation or debility, we ought always to suspect the existence of some more deep-seated cause, than that condition of the stomach which we usually understand by the indefinite term *Dyspepsia*. The treatment in such cases, must be regulated by the period of the disease, and the activity of the symptoms. They will probably seldom admit of general bleeding ; but much benefit is obtained from topical bleeding, blistering, issues, and the tartar-emetic ointment. The food should be of the mildest kind, and in very small quantity, with abstinence from all stimuli, and from bodily exertion. Hence the importance of distinguishing the affection from dyspepsia, whenever the distinction can be made, as the regimen and exercise proper in dyspeptic cases would probably be injurious.

Whether the disease can be cured after it has advanced to the stage of ulceration, may perhaps be doubted ; and it cannot be easily determined ; because, when a case terminates favourably, we have no means of ascertaining that ulceration really existed. From what we observe, however, in regard to the intestinal canal, we have good reason to believe that ulceration there may terminate favourably, provided it be simple ulceration of the mucous membrane, without tubercular disease, or much thickening of the coats of the intestine. I think I have seen the cicatrices of such ulcers, when the patient has died of another disease, after having been for a considerable time free from every complaint of the bowels. It is probable that simple ulceration of the stomach may admit of the same favourable termination ; and we certainly see cases get well, in which, from the violence and duration of the symptoms, we had good reason to suppose the existence of that disease. Of the various remedies that are employed in such cases, it is not easy to say which are really beneficial. Mercury, in small quantities, seems to be useful in such cases—in others, lime-water, and the oxyd of bismuth ; but the remedy from which I have seen the most decided benefit, in cases in which I have suspected the existence of that affection, is the sulphate of iron. The following case will serve as an example of the affection which I here refer to.

A lady, aged about 30, came to Edinburgh from a distant part of the kingdom, in summer 1818. She was affected with a violent pain of the stomach, which seized her every day, immediately after dinner, continued with great violence through the whole evening, and gradually subsided about midnight, or soon after it. It sometimes attacked her after breakfast, but more rarely. The complaint was of two years' standing, during

which time, great variety of practice, and every variety of diet, had been tried, with but very slight and transient benefit. The paroxysms occurred with perfect regularity ; and she was considerably reduced in flesh and strength. In the epigastric region, no swelling could be discovered ; but there was considerable tenderness on pressure at a particular spot. She had a sallow, unhealthy look ; and her whole appearance gave strong ground for suspecting organic disease. Various remedies were employed during the summer, with little advantage. At last she appeared to derive some benefit from lime-water, and returned home in autumn 1818, rather better. But the affection soon recurred ; and she returned to Edinburgh in 1819, as bad as ever. After another trial of various remedies, this severe and untractable affection subsided under the use of the simple remedy to which I have referred. She took gr. ij. of sulphat of iron three times a day, with a few grains of aromatic powder ; and with the addition of a small quantity of aloes, so as to regulate the bowels. Under the use of this remedy, she was very soon free from complaint, and has continued to enjoy good health.

There are other affections which seem to be connected with inflammatory action of the mucous membrane of the stomach, but I shall only allude to one of them. A woman, aged about 30, and previously healthy, in the course of a slight febrile disorder, became affected with pain and tenderness of the epigastric region, extending over the abdomen. The mildest articles of food produced great pain. There was diarrhœa, with much griping and frequent vomiting. The affection was accompanied by a very feeble pulse, great debility, and collapse of the features ; and there was a peculiar rawness and tenderness of the tongue, mouth, and throat. After various remedies had been tried without benefit, these symptoms subsided speedily under the use of lime-water.

II.

Notice by Dr. Abercrombie of M. Louis's Cases of Perforation of the Intestines in Acute Diseases, referred to in page 137 of this Number.

(From the Edinburgh Medical and Surgical Journal.)

I.—A man, aged 24.—Had feverish symptoms, with pain of his back and loins ; was better after a few days, and returned to his usual employments ; but, after some days, relapsed ; had

then headach, pains of his limbs, white loaded tongue, thirst, hot skin, and slight pain of the belly, when it was pressed; bowels rather confined; pulse frequent; after leeches, clysters, and fomentations, was better; pain of belly gone; but the symptoms returned, from improper diet, and were again relieved by the same means; and about the 12th day of the disease he was entirely free from uneasiness, though some heat and fever continued. On the three following days he was considered as convalescent; the pulse down, and no complaint. In the night of the 3d day, was seized with vomiting and severe colic pains; belly distended and tender; pulse small and frequent. Died in 20 hours. Dissection.—Bowels adhering extensively; feculent and bilious matter in the cavity of the abdomen, filling the lower part of it. At the lower end of the ileum, near the caput coli, there was a perforation of the intestine two lines in diameter. It was connected internally with an ulcer two and a half inches in circumference, circular, and well defined, with red and thickened edges. Near it, extending along the ileum, there were eight or ten ulcers, of various extent, but not perforating. They appeared not to extend beyond the mucous membrane; there was no inflammation around them, and their edges seemed disposed to cicatrize.

II.—A man, aged 22.—20th March, 1822.—Had headach and flushing suffusion of the eyes; white tongue, thirst, quick pulse, bowels open, and no complaint of the belly. 21st. Slight pain of the belly, which was relieved by leeches and a clyster. All the symptoms then subsided; the pulse came down gradually; and, on the morning of the 28th, he was considered as convalescent. Having then exceeded in animal food, he was seized with rigors, followed by fever and some delirium; pain in the region of the cæcum; stools frequent, liquid, and brown; some relief from leeches; but the symptoms returned in the night with great severity; and he died in the morning of the 29th. Dissection.—Brown fetid matter in the cavity of the abdomen, mixed with flocculi; small intestines red. In the ileum, six inches from the cæcum, there was a perforation the size of a writing quill, connected internally with an ulcer the size of a 30 sous piece. The mucous membrane around it was inflamed, and presented, in several places, red projections well defined.

III.—A young man of 17.—13th October, 1822.—Was seized with oppressive and general uneasiness, heat of skin, and loss of appetite. 16th. Continued in the same state, with foul tongue and thirst. Bowels rather slow; no complaint of belly; continued without any other symptom to the 22d; bowels moved once in the day; tongue cleaning; pulse continued fre-

quent, but moderate. 23d. Some increase of fever, with pain of the abdomen increased by pressure ; two liquid stools. In the night, the pain became extremely violent, with much bilious vomiting. 24th. Great pain and tenderness of abdomen ; small frequent pulse ; quick breathing ; nausea and occasional vomiting ; no stool. 25th. Sinking, with less suffering ; belly tumid and tense, but less tender ; vomiting continued ; no stool. Died in the afternoon. Dissection.—The abdomen contained a turbid puriform fluid, mixed with flocculi ; extensive adhesions of the intestines. In the ileum, ten inches from the cæcum, there was an opening perforating the intestine, and communicating with an ulcer of the mucous membrane, five lines in diameter. Betwixt the ulcer and the cæcum there were numerous pustular elevations covered by the mucous membrane, and three or four irregular elevations of a grey colour, an inch or more in diameter.

IV.—A woman, aged 26.—Feverish, with headach ; spasms of the throat, and a convulsive motion of the lower jaw ; quick breathing, with rattle in the throat ; some cough and bloody expectoration ; frequent pulse, and some delirium. In the night of the 10th day of the disease, was attacked with violent pain of the belly, which continued on the 11th day, with distention and great tenderness ; quick feeble pulse ; paleness ; tongue dry, and partly black ; bowels slow. In the night, vomiting began. 12th day. Sinking, with continued nausea ; numerous loose stools ; epigastrium extremely tender ; pulse very small. Died next morning, having passed the night with great distress and constant vomiting. Duration of the peritonitis, from 50 to 54 hours. Dissection.—Soft and recent adhesions of the intestines ; some inflammation of the omentum, with adhesion to the intestines ; much turbid puriform fluid in the abdomen, mixed with flocculi. In the ileum, 3 inches from the cæcum, there was a perforation two lines in diameter ; and, some inches from it, two smaller openings. Internally, they all communicated with ulcers, and besides these, there were several other ulcers not penetrating, amounting to about ten, in a space of 18 inches of the intestine. Their margins were generally irregular, and somewhat elevated, and the bottom of them was formed by the muscular coat. The mucous membrane of the part was thickened and soft. The mesenteric glands corresponding to the diseased portion were much enlarged and red.

V.—A man, aged 25.—Irregular attacks of chills and heat ; impaired appetite ; uneasiness after eating ; costiveness ; but no pain of the belly, and no frequency of pulse. After being in this state rather more than three weeks, he was suddenly seized

in the night with violent pain of the abdomen, much increased by pressure, and by the least motion; quick small pulse; and, after some hours, vomiting. During the day, the vomiting subsided; the pain continued; pulse 145, and small. Died on the following day, about 36 hours from the attack. Dissection.—Adhesion of the intestines, and fetid fluid in the abdomen, as in the other cases. In the ileum, 12 inches from the cæcum, there was a perforation 2 lines in diameter, communicating internally with an ulcer. Along the lower half of the small intestine, there were numerous elevated portions of the mucous membrane, from 6 to 13 lines in diameter, of a grey colour, variegated with blue, from one-half to three-fourths of a line in elevation. At the lower part, many of these spaces presented various degrees of ulceration; and, still lower, were found deep penetrating ulcers. Where the ulceration was small, the mucous membrane around it had the character of these elevated portions. Where the ulceration was more extensive, the surrounding membrane had a kind of grey puffiness. In one of these ulcers was the perforation.

VI.—A man, aged 30.—Had enteritic symptoms, with fever, but not severe. Bowels moderately open. After three days, was seized with violent pain in the hypogastric region, with vomiting, and died in 36 hours. Dissection.—Extensive adhesion of the intestines; mesenteric glands enlarged and red; a perforation of the ileum five inches from the cæcum, communicating internally with an ulcer. The lower two-fifths of the small intestine presented numerous diseased portions of the mucous membrane, of two kinds. Those of the one kind were grey, variegated with blue, formed by thickening of the membrane; some of them with slight ulceration. Those of the other kind were more prominent, from a line to a line and a half in elevation, with or without ulceration. Those at the lower part gradually degenerated into deep defined ulcers, and the mucous membrane around them was generally softened.—There was also an ulcer of the inner surface of the stomach, near the pylorus.

VII.—A man, aged 23.—Had suffered repeated attacks of diarrhœa, with fever, but not severe; had been ill with one of these attacks for fifteen days; stools numerous, sometimes twenty in a day; thirst; heat; anorexia; and some fever; but no pain of the belly. After another day or two, the fever increased, with some delirium in the night; shiverings; stools less numerous. Next day, constant delirium, with shivering; belly distended and slightly tender. Died the same day. Dissection.—Intestines distended and adhering extensively. Six inch-

es from the cæcum, there was a perforation of the ileum, communicating with an ulcer ; near it there were three or four other ulcers not penetrating ; and along the whole course of the small intestine there were numerous diseased portions of the mucous membrane like those described in the former case.

III.

Medico-Chirurgical Transactions, published by the Medical and Chirurgical Society of London. Vol. XII. Part II. pp. 597; plates. Longman and Co., London, 1823.

(From Anderson's Quarterly Journal of Medicine and Surgery.)

In the review of the first part of this volume, in a former series of this Journal, it was remarked, that the proposal of the Society to give prizes for superior Essays was not likely to operate as a stimulus to contributors, so long as the circumstance was so indefinitely published, assigning neither a subject for competition, nor the value of the prize to be given. The remark has been verified by the event ; for a whole year has now elapsed, another series of Essays has been published, and still we hear nothing of the prizes mentioned in the resolution of the President and Council. We venture to predict, however, that were the resolution made definite, it would soon come into vigorous operation. Were, indeed, an Essay of superior merit to be estimated no higher than that of procuring admission into the Society, it would stimulate many junior practitioners to exert themselves worthily, and procure for the Society many valuable papers, which otherwise might never be heard of. We merely give these as hints of what would be effectual in bringing their dormant resolution into active operation.

The first paper, by Mr. T. Brayne, of Banbury, is an account of two cases of biliary calculi, of extraordinary dimensions. The patient, a widow, aged 55, was of spare thin habit, and melancholic temperament, who had been always healthy till within the previous twelve months, when great languor and prostration of strength unfitted her for her occupation of a sick nurse. In six months subsequent to this, she experienced attacks of pain in the epigastrium, which returned every two or three weeks, for five or six times, and was succeeded by slight and temporary jaundice.

“ About a month after the last attack of pain, she became the subject of continued fever. At this time (Nov. 26, 1820.), I found her labouring under the following symptoms : a small

quick pulse, a foul tongue, anorexia, almost total privation of sleep, constipated bowels, scanty secretion of high coloured urine, and great mental irritability, almost amounting to complete alienation. She suffered no local pains whatever. In this state she continued, with little or no variation, until the 26th of October, when she was suddenly seized with severe pains in the left iliac region, accompanied by considerable tenderness on pressure. This urgent symptom continued unmitigated for sixteen or eighteen hours, after which she became suddenly easy, and soon passed a natural alvine evacuation, which contained a calculus of extraordinary size. This was followed in a short time by an abatement of the febrile symptoms, but she remained in a state of low melancholy for some months, from which she did at length recover, under the gentle and long continued influence of mercury on the system."

The calculus was something of the form and dimensions of a pigeon's egg, weighing 162 grains, and measuring in its transverse circumference 3 3-8 inches, in its long diameter 1 3-8 inches, and in its short diameter 1 1-8 inches. Its specific gravity just exceeded that of distilled water, and it was of a yellowish colour, variegated with brown, like an aggregation of soiled particles of spermaceti. The surface was rough and tuberculated, and internally it exhibited a radiated fracture, but no appearance of concentric laminæ, differing in this from the usual biliary or intestinal calculi.

"In the early part of the present year (1822), I was again desired to visit this patient, and I found her labouring under the usual symptoms of hydrothorax, in a severe degree, which, she informed me, had been gradually increasing for some time. No biliary derangements had occurred in the interval, so far as I could learn. The common course of treatment was adopted for her relief, but with no success; the urinary secretion could never be materially augmented, and she died on the 4th of March last, about a year and a half after she had voided the calculus. I obtained permission to inspect the body on the second day after death. On opening the abdomen, the hepatic system was the first object of examination. The liver was of the usual size and appearance in respect to colour, and seemed to vary from natural structure in nothing but in being rather more close and solid in its texture, and more resisting to the impression of the finger. The cystic and hepatic ducts were of the usual dimensions, but the gall-bladder itself was smaller and very much thickened, containing only a little pale unhealthy bile. It had contracted a strong adhesion, about the size of a shilling, to the duodenum, close to the pylorus. There was no uncommon ap-

pearance of vascularity. On removing these parts from the body, a communicating aperture, large enough to admit a crow quill, was discovered in the centre of the adhesion."

It has been usual to explain the passage of large biliary calculi from the dilatation of the duct; and it seemed, from the comparative mildness of the symptoms in this case, that this was more probable than the long and painful process of adhesive inflammation, and subsequent ulceration of the parietes concerned. This, however, the dissection proved to be the manner of its transition, for there can be no doubt, Mr. Brayne thinks, that the aperture in the adhesion was once large enough to give passage to the stone in question, and it may serve to put pathology right when it is anatomically wrong.

Mr. Brayne was called to Grace Adams, aged sixty-five, and married. She had laboured for five days under obstinate constipation, and he found her in an almost hopeless condition, the abdomen much inflated, cold and damp extremities; she vomited every thing that was given to her, and the pulse at the wrist was scarcely perceptible. The only favourable symptom was the absence of the facies hippocratica. By persevering in the exhibition of croton oil, in the form of pill, the constipation was overcome, and the urgent symptoms yielded to colocynth, castor oil, &c., and the patient got better. A few days after Mr. Brayne discontinued his visits, the patient brought him a large biliary calculus, which had escaped while she was sitting at breakfast; and in a week afterwards another, which, it is curious to mention, seemed to fit the former as if they had been lodged in apposition. The one weighed 159 grains, the other 176 grains, and they both swimmèd in distilled water.

"A comparison of these cases will lead to several interesting points of remarks. In some respects they run nearly parallel. The sex and ages of the patients;—the comparatively slight degree of hepatic irritation excited;—the nocturnal returns of the pain in the epigastrium;—the trivial jaundice in one, and the total absence in the other;—the severity of the symptoms of the intestinal obstruction;—and the subsequent dropsical affections of the thorax, are obvious coincidences."

The next paper, by Mr. Henry Earle, an indefatigable contributor, is on the important subject of local irritation, in the production of diseases resembling cancer, and other morbid alterations of structure. The author concludes from the experience he has already had, "that by early directing our views to counteract the influence of local irritation, we may often succeed in restoring healthy action; whilst in more advanced stages of disease, we may be induced to resort to operations with far

greater confidence of success than the appearance and progress of the complaint would warrant, independently of any such exciting causes."

On diseases of the Lips.—The daily, and almost unavoidable irritation of the external apertures of the body, is particularly prone to produce an indurated unhealthy aspect in the case of sores or of morbid action. Herpes præputialis will, from this irritation, often become indurated, and assume all the other characteristic marks of chancre. In the same way, ulcerations about the mouth will, if neglected, often assume the induration, and other marks of carcinoma, and in advanced life will exhibit a very appalling aspect, though when taken early may admit of cure; but if they have made much progress, our author advises excision. Of this he gives a case in illustration, and adverts to several others, in which the operation was successful.

"From my own experience, and from witnessing the success of others, I may venture to affirm, that few cases afford greater promise of success than those corroding ulcers, with scirrhus edges, which occur about the lips. The operation is so simple, and the wound so constantly unites by the first intention, that in cases that do not readily yield to local and constitutional treatment, it is far better to resort to it, and often the deformity will be less than when the ulceration heals without any operation. One circumstance may be worth adverting to, both in operating for the removal of a diseased portion of lip, and in hare-lip operation. It is better to introduce first, the point that is nearest the edge of the lips, the exact coaptation of the red margin of the lip is thus rendered more certain, and where this is nicely attended to, it is hardly possible, at a slight distance, to perceive that any operation has been performed."

Diseases of the Nose and Face.—The alæ of the nose and lower margin of the nostril, are sometimes liable to diseases like cancer, which are greatly aggravated by any catarrhal affection. The use of snuff also, sometimes produces very irritable and suspicious looking disease. In the case of an old gentleman, a sore of this kind, having many of the symptoms of cancer, was cured by abandoning the snuff, and using mild applications. In other parts of the face, such as in the vicinity of the eye, intractable ulcers often arise from local irritation of a similar kind. Many diseases of this kind may be traced to the irritation, or the slight cuts and excoriations from shaving.

"Where, however, the disease remains stationary, or inclined to spread, it will be better to remove the morbid portion, either with the scalpel, the potassa fusa, or the arsenical paste, as may appear best adapted to the individual case. In one case

of this description, the morbid disposition was kept up by the tendency which the hair had to coil up beneath the integument; several very painful pimples were thus formed, which put on a very angry, ulcerated appearance. This took place after an oblique cut from a razor, which had probably divided several hairs near their roots, which continued to grow, but could find no exit, as the wound was immediately closed. By carefully extracting each hair, some of which were above half an inch in length, the irritation soon subsided."

"In all these diseases occurring in the integuments of the face in persons advanced in years, if the character does not improve under proper treatment, it is advisable to remove the disease, which may be done in a large majority of cases, with every prospect of permanent success."

Diseases of the Tongue.—When any morbid action has been set up in the tongue, its great mobility, and its almost continual use, together with its contact with the teeth, often irregular and decayed, are quite sufficient to interrupt our efforts of cure, while the complaint is aggravated by accumulated incrustations, and often puts on a carcinomatous appearance. Mr. Earle does not advocate excision in such cases till every method of constitutional, combined with local treatment, has been found unavailing.

"Under the head of local treatment, I would place in the first rank, the removal as much as possible of all local stimuli, such as the taking away a decayed or projecting tooth, the shielding the tongue from pressure, by covering the teeth with wax, or soft lint, with complete privation of the faculty of speech, the frequent cleansing the mouth with a stream of water, or any medicated liquor from an elastic gum bottle, instead of gargling or washing the mouth by any muscular efforts; the employment of the most mild unirritating food; and in bad cases, the prohibition from the use of solid food, substituting in its room, milk and strong broths, which may be thrown into the stomach through a tube passed down the œsophagus, and even in some cases introduced through the nostril."

"As local applications to the ulcerated surface, few are more efficacious than a solution of nitrate of silver, or very much diluted nitric acid, in the proportion of three or four drops to the ounce. Occasionally, a solution of arsenic is very useful. Any of these may be thrown upon the ulcer with a syringe, which will be found better practice than keeping lint moistened with any lotion, constantly applied to the part."

"This plan of cleansing wounds with a stream of water thrown on the part from an elastic gum-syringe, I have very

frequently found extremely useful, not only in ulcers of the tongue, but in any painful ulcerations about the tonsils or fauces; in which cases, it frequently happens that the effort of gargling is productive of great pain, and is very insufficient to remove the sloughs, and inspissated sputum, which is often very tenacious and difficult to be got rid of. All that is required, is for the patient to hold his head over a basin, with his mouth open, and by compressing the elastic bottle he will throw a stream with considerable force on any part of the throat to which he may wish to direct it. This may be readily done by patients in the most enfeebled state."

Diseases of the Prepuce.—These are frequent in old people, with elongated foreskins, which prevent them from cleaning away the secretion from behind the corona glandis; give lodgement to irritating quantities of urine; and ultimately excoriation and phymosis is established, while the natural passage is obliterated, and the urine dribbles away through the ulcerated apertures. An intractable disease is thus established, for which, at length, the knife is the only remedy.

"The removal of the whole indurated mass is the only remedy, and this operation may be resorted to even when the characters of the complaint have assumed a very malignant aspect, with confident expectations of success. In three instances, in persons much advanced in life, in which I had an opportunity of seeing the patient for many years subsequent to the operations, the complaint never returned. Two of them died of gradual decay, being at the time of the operation more than eighty years of age, and one still survives."

"The removal of the whole penis is the operation which is generally resorted to in these cases, but from the examination I have made of the parts after amputation, I doubt whether the removal of the diseased integument would not, in the majority of cases, be equally efficacious. When we look to the period of life at which this disease usually occurs, it would be a matter of little importance whether a portion of the body of the penis were removed or not, and the quantum of pain is probably nearly the same; but this is a circumstance of great consequence with reference to the after treatment, as great inconvenience is often experienced from the powerful contraction which takes place in the cicatrix, at the extremity of the urethra."

Mr. Earle concludes his paper with the recommendation of a very bold sort of practice.

"With the intention of obtaining a total respite from labour, and the removal of local stimulants, I would propose, in obsti-

nate cases of disease in the urethra, in very irritable constitutions, to puncture the bladder above the pubes."

The succeeding paper, also by Mr. Earle, may be considered as a sequel to his remarks on local irritation, namely, the chimney sweepers' cancer, arising from the local irritation of soot in constitutions prone, often hereditarily, to the disease. It seldom occurs till the age of thirty, and only one instance is known to have occurred among climbing boys before puberty. A case is recorded by Sir James Earle in the works of Pott, of a gardener, who had the disease on his wrist, from distributing soot to destroy slugs. There is no remedy but the knife. Mr. Pott was against the operation when the testicle was affected; but Mr. Earle has known two successful operations in these circumstances.

Mr. Hammond in the next paper advises, in cases of parturition where the head of the fœtus has to be operated upon, to divide the medulla oblongata or the spinal cord, as the extraction of the cerebrum does not produce immediate death. In a case in which he extracted two ounces of cerebrum, the child lived forty-six hours, often crying strongly, and sunk apparently in consequence of hemorrhage from the wound.

In the succeeding paper, Dr. H. S. Roots gives a case of bronchocele in a young lady—where the tumour was the size of an orange, successfully treated with iodine, on the plan of Coindet. He began with the formula

R Potassæ Hydriodat. gr. xxxiv

Ceræ albæ 3ij

Adipis Suillæ 3jss. M.

The size of a garden bean to be rubbed into the tumour night and morning. He afterwards increased the iodine to fifty grains, and gave the tincture of iodine internally, in the dose of twenty drops, twice or thrice a day as the stomach could bear it. The patient got quite well in a few months.

Dr. R. M. Kerrison has given some very curious passages from Prosper Alpinus and Fabricius Hildanus, of the early methods of extracting calculi from the bladder in males by dilating the urethra. The dilatation was effected by blowing into a canula, into the perforation of which the calculus was brought by the finger introduced into the rectum.

Dr. Gregory, of the Small pox Hospital, has given one of the best papers on small-pox after vaccination which we have seen, notwithstanding the great interest the subject has excited, and the numerous publications to which it has given rise. We shall therefore make copious extracts from the more interesting parts of it.

“ In a very large proportion of cases, the same immunity is afforded by vaccination, as by once undergoing the genuine variolous disease.

“ In cases where the vaccine virus fails to impart a perfect security from the future influence of the variolous poison, it serves, at least, to modify certain of its effects. These it is important to investigate. It is in this manner that small-pox, after vaccination, occasionally proves fatal ; the chief evidences of which are delirium, inflamed eyes, stupor, or restlessness, and disposition to erysipelas and gangrene.

“ In the investigation of the causes of small-pox subsequent to vaccination, it would be improper to overlook the remarkable connection that subsists between the degree of perfection in the vaccine cicatrix, and the violence of the secondary disease.”

“ When the scar on the arms is perfect, that is distinct, circular, radiated, and cellulated ; but, above all, when it is small, so that it may be covered with a pea ;—the secondary affection (if from peculiarity of habit, or any other less ascertained cause, it does not occur) will be slight, and hardly deserve the name of a disease.”

“ On the other hand, whenever the scar is large, and bears the mark of having been formed by high local inflammation, and wants the other distinctive characters just enumerated, the chance of small-pox occurring in after-life will be greater, and *cæteris paribus*, there will be a stronger likelihood of its proving severe.”

“ This principle receives a striking confirmation from what takes place in re-vaccination. Where the cicatrix is perfect, it is impossible, or nearly so, to reproduce the vaccine disease in any thing like its genuine form. In proportion to the imperfection of the cicatrix, will be the degree of approximation of the second to the primary vaccination.”

“ These considerations tend to establish, as a pathological principle, that the occurrence of small-pox, subsequent to vaccination, is dependent upon intensity of the vaccine influence, as primarily exerted ; and they lead to the belief, that the appearance of the cicatrix may be taken as a measure of that intensity.”

“ From the register kept at the Small-pox Hospital, it appears that in the year 1810, the proportion of cases of small-pox, succeeding vaccination to the whole number of admissions, was as 1 to 30 ;—in 1815, 1 to 17 ;—1819, 1 to 6 ;—in 1821, 1 to 4 ; and in 1822, 1 to 3 1-2, the proportion rapidly advancing every year.”

Mr. Pope, of Oxford-street, has given some useful experi-
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ments on the superiority of the several kinds of sarsaparilla.—The whole medical efficacy of the plant appears to reside in the bark, for the root, deprived of its cortical part, contains only pith and tasteless fibre, yielding nothing but insoluble mucus, and a very small portion of extract. The best sarsaparilla is that lately brought from Jamaica, but probably grown in the Spanish Main, in a wild state. The external bark is deep red, the bark next to this, or rete mucosum, is also of a deep red colour, which distinguishes it at once from the other varieties.

In giving the details of a successful case of stricture of the urethra, treated by incision, Mr. J. M. Arnot remarks, that

“The only arguments which may be advanced against resorting to the treatment by operation, are its danger and severity. As for the first of these, no surgeon thinks of danger when he cuts down upon a stricture, in order to heal a fistula in the perineum; and surely there is no additional risk in the cases we are considering. With respect to the severity of the process, this will scarcely be taken into account by those who have witnessed the distressing state of a man with stricture, so narrow that he can only pass his urine in drops, or in a thread-like stream; or by a surgeon who knows that such a state will gradually wear out the patient's health, even should he not be attacked with total retention of urine, which he is daily liable to, and will then of necessity require the performance of this or a still more severe operation, under unfavourable circumstances for its success.”

Mr. Langstaff has given the history of a very interesting case of ascites connected with utero-gestation, in a lady, aged 39, pregnant of her 9th child, which was successfully treated by operation. It was a very critical and serious point, to decide about the seventh month of pregnancy, whether premature labour should be brought on, or the operation of tapping be performed. The first was determined on by consultation, and the liquor amnii, small in quantity, let off. But no symptoms of labour followed, and death seemed fast approaching, when Mr. Langstaff cut down to the peritoneum a little below the umbilicus, and evacuated about 25 pints of fluid. Three days after she bore a dead child by an easy natural labour, and in a fortnight was considered out of danger. Mr. Langstaff justifies his bold practice by a case of Scarpa's, given in the first series of this Journal, vol. I. 249.

Extraction of Calculi by Dilatation of the Urethra. By Sir A. Cooper.—In addition to the case of the Rev. M. Buller, from whom Sir Astley extracted more than 80 calculi with Weiss's dilator, he here gives three more recent cases. The first is by

Mr. Brodie, who extracted at different times upwards of sixty calculi from a gentleman, aged 70. One of these was too large to pass, but was extracted in fragments. The second case is given partly by Sir Gilbert Blane, and partly by the patient himself, Sir William B— aged 67, from whom Sir Astley extracted at different times two calculi, one weighing 17½ grains, and the other 54 grains, both consisting chiefly of lithic acid. The last, it was found very difficult to extract, and Sir Astley thinks it would be better, in similar cases, to extract by incision into the urethra, posterior to the glans, and anterior to the scrotum. In another case, of a mariner, aged 66, Sir Astley extracted at different times, with very little pain, about 30 calculi. Since then he has extracted calculi from another patient, and even by dilating the urethra, gave them a passage with the urine. With respect to the original invention, Sir Astley remarks with great justice, that if it were known before, it was certainly never turned to any good account.

Dr. W. Philip seems to be very much at a loss for subjects to write upon, though he is determined to write. His late papers in the *Journal of Science*, are a mere cento from his published works, and in the paper introduced here on the powers of the circulation, we are presented with the echo of an echo—his own experiments, and those of Dr. Hastings, over again. When Dr. Philip shall take the trouble of giving us something new, we shall analyze with pleasure; but we cannot enter with spirit upon a twice told tale.

In an elaborate Essay on phlegmasia dolens, Mr. David D. Davis criticises the pathology of White, Trye, Hull, and others; and, upon the basis of morbid anatomy, endeavours to prove that the disease is proximately caused by inflammation of the veins of the parts affected. Like all systematic theorists, he presses the point too exclusively, and though we admit he is in some measure right, and cannot too highly prize his anatomical investigation of the subject, we are disposed to allow more weight than he does to the opinions of Dr. Hull, which seem to be founded on a much more philosophical and enlarged view of the morbid changes in the affected parts. Besides, the cases adduced by Dr. Davis, are far from disproving Dr. Hull's account; while at the same time Dr. Hull expressly states that "the inflammation may be communicated to the large blood vessels," the exclusive proximate cause given in the paper under review. Except, therefore, in the dissections, which are of considerable value, we do not see that there is much novelty in the paper. The treatment recommended, is precisely the same as that to be found in all the text books, though it is magisterial-

ly laid down by Dr. Davis, in a style of very objectionable egotism, as if he were the only proposer. "I am happy to have it in my power," he says, "to assure the society," that local treatment is the best means of resolving the inflammation. We are persuaded that even the youngest member of the society did not require his assurance on a point so long well established.

On the Effects of Stricture of the Urethra, particularly in a sacculated state of the bladder. By JOHN SHAW, Esq.—Mr. Shaw commences this valuable paper by stating four interesting pathological facts.

"1st, I have not, in more than a hundred dissections which I have made of diseases of the urethra, seen a stricture or narrowing of the canal, posterior to the ligament of the bulb; nor have I been able to find one example of stricture beyond this part among those preserved in the College Museum."

"2d, In almost every instance where a narrow stricture has existed for some time, in any part of the urethra anterior to the ligament of the bulb, I have found the membranous and prostatic portions dilated to three or four times their natural size."

"3d, The ducts of the prostate, which are naturally very small, are always more or less enlarged when there has been a stricture, or a long continued irritation of the canal."

"4th, When such stricture as causes occasional retention of urine has existed for some years, the bladder is found to be not only thickened, but often at the same time sacculated."

From the first of these it follows, that if our instrument is obstructed at a point posterior to the ligament of the bulb, we ought not to infer a stricture; and hence both from this and the second, we should not, on meeting with such an obstruction, attempt to push the instrument further in. The third might lead to the inference, that the instrument, if obstructed, had passed into one of the dilated ducts of the prostate, which often form a complete labyrinth. The using force in such cases, though recommended even by Dessault, must always be hazardous and improper.

As the healthy urethra becomes suddenly narrow at the bulb, while the curve of the canal suddenly changes, the ligament being higher than the sinus of the bulb, it must follow, in cases of slight inflammation, that spasmodic action will be excited by passing a bougie, the instrument will be obstructed, and lead to the false supposition of a stricture. Besides, when the bougie is obstructed at the bulb, its upper surface may be so cut, or indented, by being pressed against the lower edge of the ligament, as to have exactly the same appearance as that which has been considered as an unequivocal proof of there being a stricture at that point where the instrument has been stopped. Many stric-

tures at the bulb may probably, indeed, have originated in the inflammation consequent upon ineffectual attempts to pass the instrument, while the internal membrane was irritated or inflamed.

Mr. Shaw goes on to infer, that stricture is very frequently followed by sacculated state of the bladder or prostate, often leading to the disastrous consequences of recto-vesical fistula, bursting of the urethra, and sloughing of the scrotum and penis, peritonitis, irritative fever, and death.

In treating such cases, Mr. Shaw, very justly we think, condemns the instrument invented for dilating strictures, as quite useless in cases of difficulty, for many strictures will not permit any thing thicker than a hog's bristle. In the cases in which the dilator might be used, the common means would be no less successful, and more simple. He advises the operation of cutting through the stricture, introducing a catheter from the glans, and endeavouring to make the urethra entire by allowing the wound to granulate over the catheter. The operation is easy, the delay of it may prove fatal to the patient—a circumstance of daily occurrence in London; and when the stricture is divided, the principal object is attained. The great difficulty of the operation is the existence of false passages, which may be cut down upon instead of the stricture; and in passing the catheter afterwards into the bladder, we may again be misled by other false passages. The worst almost that can happen, is a fistulous sore; but this is known to be much more manageable than spontaneous fistula.

The paper was illustrated by numerous interesting preparations of strictures, false passages, dilated ducts, sacculated bladder, &c., from the Museum in Great Windmill-street.

Mr. Swan, of Lincoln, in a paper giving several cases of injuries of the pelvis, remarks, that

“When the urethra or bladder is wounded, and the bones of the pelvis at the same time are broken, it appears to me that there can be no chance for the recovery of the patient, unless an incision is immediately made to give it a free discharge to the urine; for if any of it is detained, it must destroy the bones, and prevent their union; or, at least, it must give rise to extensive exfoliations. At the same time, any loose portions of bone should be removed, as it is most probable, the urine will have prevented their re-union.”

Dr. Harry Leake Gibbs, of St. Petersburg, in the succeeding paper relates a case of axillary aneurism, in which the operation of tying the subclavian artery was successfully performed on a strong plethoric cooper, aged 35. The ligature came away on

the twelfth day, and the patient was nearly well and walking about on the twenty-first day from the operation, the wound being all healed to a small spot in the centre, from which a little lymph was oozing. Pulsation not perceptible, but the arm warm and well nourished; appetite and sleep good.

“The arm and upper part of the shoulder must have been nourished, in the first place, by anastomosing vessels coming from the neck and right scapula; but especially from the extreme branches of the left epigastric, inosculating with those of the left mamma externa, by which the blood at first returned to the axillary artery below the tumour, and so onwards.”

In the next paper, Mr. Powell relates a case of ruptured uterus during parturition. The fœtus was extracted by Dr. Davis, by turning and craniotomy; and after very severe suffering from hypogastric pain, difficulty of breathing, &c. the patient got well.

Illustrations of the Medical Properties of Quinina. By JOHN ELLIOTSON, M. D. &c.—We were among the first in this country to call the attention of the profession to this medicine, in the last series of our Journal. Since that period, it has been extensively tried, and in many cases has been found of great power. Dr. Elliotson commences with an outline, from the French journals, of the history of the substance, and its exhibition, both of which we gave more copiously in a former series, and shall not repeat. Dr. Elliotson prescribed the sulphate of quinina in the form of pills:—

“I may add, that, although in doses of five grains every six hours, I have never observed any disturbance of the functions, a dose of ten grains occasioned vomiting in the three only instances in which the medicine was carried to this extent from its not strengthening the patients in ordinary doses.”

The following case seems to argue strongly in behalf of its tonic powers:—

“A poor Irishwoman, half-starved, and flooding, was brought into St. Thomas’s, labouring under severe typhus, on the 19th of June. She was supported by plenty of beef-tea and milk; the epigastrium, forehead, and occiput were blistered; and hyd. cum creta was prescribed in doses of \mathfrak{z} j, and sometimes \mathfrak{z} ij, every six hours, till the mouth grew sore. The delirium and stupor were entirely subdued, and the tongue became clean and moist, but the debility increased hourly. The face became ghastly, and the body sunk lower in the bed. I ordered three, and soon five, grains of sulphate of quinina to be given every six hours, and the diet to remain as before. A striking amendment was observed the next day, and she speedily recovered.

After being convalescent some time, the medicine was omitted; but, when I thought of discharging her, she suddenly relapsed into extreme prostration of strength, passed her urine and fæces again involuntarily, and grew delirious; but the tongue remained clean and moist. The two blisters to the head were repeated, and the sulphate ordered as before, milk and beef-tea *ad libitum*, continuing to be her diet. The amendment was not so sudden, but from the first day of recurring to the medicine, the debility ceased to increase; in a few days she clearly gained strength, and was soon convalescent. After taking the full diet of the house, and a pint of porter daily, for two or three weeks, she was discharged perfectly strong and well."

Dr. Elliotson was equally successful with the French physicians in exhibiting the medicine in intermittent; so that its efficacy appears to be proved.

"It is of the greatest moment to have the sulphate genuine, as its high price, three or four guineas an ounce, makes it an object with unfair dealers to adulterate it. It should be intensely bitter, as white as snow, and extremely light, resembling benzoic acid in its appearance."

Having been successful with the sulphate, Dr. Elliotson next tried the quinina itself in its alkaline form.

"The article was prepared for my use by digesting cinchona in a very dilute solution of sulphuric acid (3ij to four gallons of water,) straining, and then adding magnesia by saturation, by which means the quinina was precipitated from the acid, mixed with tannin and extractive matter, and sulphate of magnesia remained in solution. The precipitate was again dissolved in sulphuric acid, again precipitated, and finally washed and dried. A pound of cinchona cordifolia furnishes about an ounce of this impure quinina, or about two drachms of pure sulphate of quinina by another process, in which quinina is obtained pure, by means of alcohol, previously to its formation into a sulphate, whence the greater real expense of this article."

The simple quinina was tried in eleven cases of intermittent, with the same success as the sulphate, with the favourable exception that Dr. Elliotson never observed derangement of the stomach, induced by doses of the impure preparation employed, in doses as large as ten grains every six hours. There is not, according to our author, any unpleasant narcotic effect produced by either of the medicines, and they frequently succeed when the bark itself, in any of its more antique preparations, fails.

"After the extraction of the quinina, the yellow bark is as tasteless as so much wet saw dust; and I presume the same is

the case with the pale, after the extraction of the cinchonina, and with the red, after the extraction of both."

MONTHLY SUMMARY

OF PRACTICAL MEDICINE.

I. ANATOMY AND PHYSIOLOGY.

MR. CHARLES BELL *on the motions of the Eye.*

We formerly mentioned the remarks of Mr. Bell on the state of the eye during sleep, fainting, and the approach of death; and his division of the muscles into voluntary and involuntary, the recti belonging to the former, and the oblique to the latter class. The following are the experiments on which the reasonings of Mr. Bell are founded :

" 1. I divided the superior rectus or *attollens* in a rabbit, and felt something like disappointment on observing the eye remain stationary. Shortly afterwards, on looking to the animal while it was feeding, I saw the pupil depressed, and that the animal had no power of raising it.

" The explanation I conceive to be this : During the experiment the eye was spasmodically fixed by the general action of the muscles, and particularly by the powerful retractor, a muscle peculiar to quadrupeds. But, on the spasm relaxing, and when the eye was restored to the influence of the voluntary muscles, the recti, the voluntary power of raising the eye being lost by the division of the superior muscle, the eye was permanently depressed.

" 2. Wishing to ascertain if the oblique muscles contract to force the eyeball laterally towards the nose, I put a fine thread round the tendon of the superior oblique muscle of a rabbit, and appended a glass bead to it of a weight to draw out the tendon a little. On touching the eye with a feather, I had the pleasure of seeing the bead drawn up ; and, on repeating the experiment, the thread was forcibly drawn through my fingers.

" By experiments made carefully in the dead body, (having distended the eyeball by dropping mercury into it to give its full globular figure,) I had found that the action of the superior oblique muscle is to turn the pupil downwards and outwards, and that the inferior oblique just reverses this motion of the eye.—

In the above experiment there is abundance of proof that the superior oblique muscle acted, and yet the pupil was not turned downwards and outwards; therefore both oblique muscles must have been in action. Their combined action draws the eyeball towards the nose.

"In the violent spasmodic affection of the eye, when it is painfully irritated, I believe that all the muscles, both of the eyeball and eyelids, are excited. In quadrupeds, I have ascertained that the oblique muscles act when the haw is protruded; but I have also found that the retractor oculi, alone, is capable of forcing forwards the haw.

"But quadrupeds, having an additional apparatus of muscles to those of the human eye, are not suited for experiments intended to illustrate the motions of our eyes. The monkey has the same muscles of the eye with man.

"3. I cut across the tendon of the superior oblique muscle of the right eye of a monkey. He was very little disturbed by this experiment, and turned round his eyes with his characteristic inquiring looks, as if nothing had happened to affect the eye.

"4. I divided the lower oblique muscle of the eye of a monkey. The eye was not, in any sensible manner, affected; the voluntary motions were perfect after the operation.

"5. On holding open the eyes of the monkey which had the superior oblique muscle of the right eye divided, and waving the hand before him, the right eye turned upwards and inwards, while the other eye had a scarcely perceptible motion in the same direction. When the right eye was thus turned up, he seemed to have a difficulty in bringing it down again.

"From these experiments it is proved, that the division of the oblique muscles does not in any degree affect the voluntary motions by which the eye is directed to objects.

"This cannot, however, be said of the involuntary winking motions of the eyes. We have seen that, in winking to avoid injury, the oblique muscles were in operation; and that the inferior oblique muscle gained in the power of elevating the eyeball by the division of the superior oblique, its opponent."*

* "Since this paper was read, a case has occurred in the Middlesex Hospital, under the care of my colleague, Dr. Macmichael, which shows the consequences of the eye and eyelids being rendered immoveable. In this case the surface of the eye is totally insensible, and the eye remains fixed, and directed straight forwards, whilst the vision is entire. The outward apparatus being without sensibility and motion, and the surface not cleared of irritating particles, inflammation has taken place, and the cornea is becoming opaque; thus proving the necessity of the motions of the eye to the preservation of the organ. Another curious circumstance, illustrative of

During repose the voluntary muscles resign their office, and the involuntary muscles draw the pupil under the upper eyelid ; but, when the eye is in action, we receive two distinct impressions : first, that upon the retina ; and, secondly, that which conveys the idea of position,—this last depending solely upon the voluntary muscles. It is thus illustrated :—

“ Let the eyes be fixed upon an illuminated object until the retina be fatigued, and in some measure exhausted by the image, then closing the eyes, the figure of the object will continue present to them : and it is quite clear that nothing can change the place of this impression on the retina. But, notwithstanding that the impression on the retina cannot be changed, the idea thence arising may. For, by an exertion of the voluntary muscles of the eyeball, the body seen will appear to change its place, and it will, to our feeling, assume different positions according to the muscle which is exercised. If we raise the pupil, we shall see the body elevated, or if we depress the pupil, we shall see the body placed below us ; and all this takes place while the eyelids are shut, and when no new impression is conveyed to the retina. The state of the retina is here associated with a consciousness of muscular exertion ; and it shows that vision, in its extended sense, is a compound operation, the idea of position of an object having relation to the activity of the muscles.

“ We may also show, by varying the experiment, that an agitated state of the muscles, or a state of action where the muscles are at variance or confused, affects the idea of the image. If we look on the luminous body so as to make this impression on the retina, and then cover the face so as to exclude the light, keeping the eyelids open, and if we now squint or distort the eyes, the image, which was vividly impressed upon the retina, instantly disappears, as if it were wiped out. Does not this circumstance take place because the condition of the muscles, thus unnaturally produced, being incongruous with the exercise of the retina, disturbs its operation ?

“ If we move the eye by the voluntary muscles, while this impression continues on the retina, we shall have the notion of place or relation raised in the mind ; but, if the motion of the

the observations made above, is, that when both eyes are shut, the eye affected continues to be sensible of a red light coming through the eyelid, whilst the sound eye is in darkness. The reason of this I apprehend to be : the eye which possesses its natural motions is turned up, but the eye which continues fixed, looking forwards, receives the light through the transparent eyelid ; and thus it appears that the dropping of the eyelid would make an imperfect curtain, if unaccompanied by the turning-up of the eyeball during repose.”

eyeball be produced by any other cause, by the involuntary muscles, or by pressure from without, we shall have no corresponding change of sensation.

“ If we make the impression on the retina in the manner described, and shut the eyes, the image will not be elevated, although the pupils be actually raised, as it is their condition to be when the eyes are shut, because there is here no sense of voluntary exertion. If we sit at some distance from a lamp which has a cover of ground glass, and fix the eye on the centre of it, and then shut the eye and contemplate the phantom in the eye ; and if, while the image continues to be present of a fine blue colour, we press the eye aside with the finger, we shall not move that phantom or image, although the circle of light produced by the pressure of the finger against the eyeball moves with the motion of the finger.

“ May not this be accounted for in this manner :—The motion produced in the eyeball not being performed by the appropriate organs, the voluntary muscles, it conveys no sensation of change to the sensorium, and is not associated with the impression on the retina, so as to affect the idea excited in the mind ? It is owing to the same cause that, when looking on the lamp, by pressing one eye we can make two images, and we can make the one move over the other. But, if we have received the impression on the retina, so as to leave the phantom visible when the eyelids are shut, we cannot, by pressing one eye, produce any such effect. We cannot, by any degree of pressure, make that image appear to move, but, the instant that the eye moves by its voluntary muscles, the image changes its place : that is, we produce the two sensations necessary to raise this idea in the mind ; we have the sensation on the retina combined with the consciousness or sensation of muscular activity.”

In considering the nerves of the eye, it is proper to keep in mind that the sensibilities of different parts of the body differ as much in kind as in degree. The fifth pair gives to the surfaces of the head and face the same kind of sensibility which the spinal nerves communicate to the rest of the body ; but, besides this, some of its branches also bestow “ that distinct sense on certain parts for the purpose of drawing the muscles into combination ;” an example of which is the acute sensibility of the surface of the eyeball to minute particles of foreign bodies, which both excites the flow of tears, and draws the muscles into combined action to expel the offending matters. On dividing the branch of the fifth which goes to the cheek and lips, these become deprived of their sensibility, although expressly supplied with other nerves, and retaining the power of motion ;

so, likewise, if that branch which goes to the forehead be divided, the sensibility of the parts is lost : hence we are led to the conclusion, " that all the branches of the same division resemble each other in function, and bestow sensibility on the parts within as well as on those without." That the ophthalmic nerve may have its function destroyed, and the sensibility of the parts supplied by it lost in consequence, we learn from the following case, communicated to the author by Mr. Crampton of Dublin. In perusing this case, it is necessary to keep in mind that this nerve supplies the parts within the orbit, and thence ramifies upon the eyelids and forehead.

" A few days after the discharge from the ear had ceased, the eye became entirely insensible to the touch. This loss of feeling extended to the lining of the eyelids, to the skin covering them, and to the skin of the cheek and forehead, for about an inch surrounding the eye : it did not go beyond the middle line of the face. When she told me her eye was dead, (as she expressed it,) to be certain, I drew my finger over its surface ; and, so far was this from giving her pain, that she assured me she could not feel that I was touching it at all. The eyelids made no effort to close while I was doing this, but the conjunctiva appeared sensible to the stimulus, as a number of vessels on the surface of the eye became immediately injected with blood."

" Here (continues Mr. Bell,) we have an insensibility of the eye itself corresponding with the insensibility of the skin, which latter part we know possesses sensibility through the fifth nerve ; and we therefore conclude that it is the affection of the same nerve near its root to which we have to attribute the insensibility of the surfaces of the eye, as well as of the skin around the eye.

" By experiment it can farther be made evident, that the sensibility of the eye, enjoyed through the ophthalmic nerve, does not bestow on the organ directly the power of combining the muscles, either for the defence of the eye or for any other purpose. The impression must be referred back to the brain, and the muscles excited by their proper nerves. I have not been able to excite the motion of the eye by irritating the ophthalmic division of the fifth after the division of its root,* and in the instance just given the eyelids did not move when the surface of the eye was irritated, because no sensation was conveyed inward to the sensorium, and consequently no mandate transmit-

* "In attempting to excite the muscles of the eye by galvanism sent through the fifth nerve, the muscles of the jaw were affected."

ted from it. The young lady could see, and could move the eye and eyelids ; the eye itself was irritated by touch, as appeared from the rising inflammation ; but, by the insensibility of the ophthalmic nerve, a link was lost in the relation necessary to join the action of the muscles to the sensibility of the surface."

The motions of the eyelids, both voluntary and involuntary, are described as depending upon the respiratory nerve of the face : it contracts the eyelids at will, and also produces the effect of involuntary winking. The rolling of the eyeball, which takes place sympathetically with the closing of the lids, is effected through the influence of the fourth nerve. This rises at a part of the brain remote from the other nerves of the orbit, runs along without touching any of them, and is entirely distributed upon the superior oblique ; a peculiarity which exists in all animals. The nerve in question takes its rise from the same tract of fibrous substance which gives origin to the respiratory of the face : "in a word, the connexion of the root declares the office of this nerve,"—viz. to effect the rolling movement of the eyeball, and to associate this with the winking of the eyelids. The third and sixth are the voluntary nerves, both being distributed to the muscles within the orbit, and conveying the perceptions of place or rotation. Mr. Bell concludes this part of the subject with the following remarks :

"I hope I have now unravelled the intricacy of the nerves of the head, and have correctly assigned to each nerve its proper office. In our books of Anatomy, the nerves are numbered according to the method of Willis, an arrangement which was made in ignorance of the distinct functions of the nerves, and merely in correspondence with the order of succession in which they appear on dissection.

"The first nerve is provided with a sensibility to effluvia, and is properly called olfactory nerve.

"The second is the optic nerve, and all impressions upon it excite only sensations of light.

"The third nerve goes to the muscles of the eye solely, and is a voluntary nerve by which the eye is directed to objects.

"The fourth nerve performs the insensible traversing motions of the eyeball. It combines the motions of the eyeball and eyelids, and connects the eye with the respiratory system.

"The fifth is the universal nerve of sensation to the head and face, to the skin, to the surfaces of the eye, the cavities of the nose, the mouth, and tongue.

"The sixth nerve is a muscular and voluntary nerve of the eye.

“ The seventh is the auditory nerve ; and the division of it, called *portio dura*, is the motor nerve of the face and eyelids, and the respiratory nerve, and that on which the expression of the face depends.

“ The eighth, and the accessory nerve, are respiratory nerves.

“ The ninth nerve is the motor of the tongue.

“ The tenth is the first of the spinal nerves : it has a double root and a double office ; it is both a muscular and a sensitive nerve.

“ Had I taken the nerves of any other complex organ rather than of the eye, I should have had an easier task. If I had taken the nerves of the tongue, I should have been able to prove by experiment, and in a manner the most direct, that the three nerves belong to three distinct functions, and stand related to three different classes of parts. I could have shown that taste and sensibility belong to the office of the fifth nerve, voluntary motion to the ninth, and deglutition to the glossopharyngeal nerve of the tongue.”—*Med. and Phys. Journal*.

MM. PREVOST and DUMAS *on the phenomena of muscular contraction.*

The phenomena which are attendant on muscular contraction have been ably illustrated by these ingenious physiologists. The muscles in the state of repose present the appearance of straight fasciculi of fibres, which are parallel, and united by cellular texture. If a muscle, sufficiently fine to retain its transparency, be placed under a microscope, and contractions be excited in it by means of a galvanic current, the fibres are seen to be instantly thrown into a zig-zag form, and this action produces the contraction of the muscle. This change in the shape, however, produces none in the bulk of the organ, as had already been shown by the experiments of Barzotelli. The nervous branches are distributed in the muscle, at first without observing any regular course ; but, if these branches be followed, and examined under a sufficient magnifier, they will be found to spread themselves out, and to divide into separate filaments, which run parallel to one another, but in a direction at right angles to the muscular fibres. They are folded upon themselves after having run a little way, and return towards the point from which they set out, losing their parallelism by degrees, and re-entering the fasciculus from whence they originated. Frequently, instead of returning to the same fasciculus,

they anastomose with a neighbouring one; but in every case the elementary nervous fibres traverse the muscle, cutting its fibres at right angles. On these grounds, the phenomena attending muscular contraction are supposed explicable, by a galvanic current traversing the nervous filaments which are known to be good conductors, and to be well insulated by their fatty envelope. According to the law of M. Ampere, they will approach each other, carrying with them the muscular fibres to which they are attached, and will thus cause the plaiting or folding which has been described; and the shortening of the muscle must follow, as a necessary consequence. If this hypothesis be well founded, the muscle will become a very sensible galvanometre. If the galvanic current be passed into an insulated portion of nerve, the muscle to which it goes will contract immediately, even although it may not be included in the circle.—According to the hypothesis of MM. Prevost and Dumas, this result could not be explained if the nerve be regarded as a simple conductor; but it is easily understood if it be admitted that two opposite conductors exist in each nerve, as the result and anatomical structure would likewise seem to show.—*Lond. Med. and Phys. Journal.*

II. SURGERY AND MIDWIFERY.

M. DUPUYTREN'S *Case of Wry Neck.*

When this deformity is occasioned either by spasmodic contraction of one of the sterno mastoid muscles, or paralysis of the other, it may sometimes be relieved by an operation. In a case of the former kind it would be requisite to divide some of the fibres of the diseased muscle; in the latter a sufficient quantity of the corresponding healthy one would require to be cut, in order to establish a uniformity of action between the two.

The history of the following case may serve as a guide in practising the operation, as well as one proof of its success.

A little girl about ten years of age, whose neck, or rather her head, had been awry for three years, owing to a permanent spasmodic contraction of the sterno mastoid muscle of the right side, was admitted into the Hotel Dieu, Paris, early in January 1822. On the sixteenth of that month the operation was performed by M. Dupuytren as follows.

The patient reclining against an assistant, a puncture was made, with a straight narrow bladed bistoury, through the integuments just on the inner border of the sternal extremity of

the contracted muscle. The blade of the bistoury, being flatly opposed to the muscle, was pushed cautiously behind it, the point being directed forwards and outwards till it protruded just on the outer side of the clavicular border. The edge of the bistoury was then turned towards the muscle, and a sufficient quantity of its posterior fibres cut to allow of the head being placed erect: the instrument was then withdrawn.

In this way the integuments escaped being divided, and a future scar was prevented; a very desirable object, the patient being a female.

The cut edges of the muscle were kept asunder by depressing the clavicle, and inclining the head to the left side. The former was effected by binding the right hand firmly to the foot, the knee being bent; thus the clavicular fibres of the deltoid drew the bone downwards; the latter by a roller passed round the head and under the left axilla.

The patient was kept in bed; and at the end of thirteen days the punctures were healed, and she had free motion of the neck, though from long continued habit, she still turned her face to the left side. The bandages were re-applied, and the same bodily position maintained, till the 21st of February, when they were finally taken away, and the patient pronounced cured, the head being but very slightly inclined to the right side, and having free motion in every direction.

In operating on the male, the fibres may be cut on the anterior surface of the muscle, an incision being first made through the integuments. Inclining the head to the opposite side by a roller, and filling the wound with lint, will then be sufficient to keep its cut edges asunder.—*Quar. Jour. of For. Med.*

On the Application of Nitric Acid to irritable Ulcers of the Face, Nose, &c. By CHARLES AVERILL.

Having seen, in the second part of the last volume of the Medico-Chirurgical Transactions, a paper of Mr. EARLE's, on Local Irritation and on Diseases of the Integuments of the Nose and Face, I am led to offer the following observations and cases to your notice.

That those indolent ulcers, which from their irritable nature are called *Noli me tangere*, are, in the first instance, dependent on some constitutional derangement, seems most probable; but numerous cases demonstrate that constitutional treatment alone

is not sufficient for their cure, and that local remedies, of the most active kind, are absolutely requisite.

As far as I have observed, these irritable sores are most commonly found among the lower ranks of society, in young persons, whose scrofulous constitution, and white and delicate skin, is peculiarly liable to suffer from exposure to the vicissitudes of climate; under those circumstances of uncleanness and moisture, which, from their disposition to catarrhal affections, can scarcely be prevented in persons of their habits. The principle of the local treatment of these cases, as justly stated by Mr. Earle, is, that the parts involved in the diseased action should be artificially removed. He proposes that this should be done by the scalpel, the potassa fusa, or the arsenical paste. In several cases, it has appeared to me that the application of concentrated nitric acid to the ulcerated surface is better adapted for its removal than either of those three methods. The sores are often so numerous or so extensive, or they implicate parts of such a nature, as to render their excision uncertain, or even unjustifiable. The depth to which sloughing is produced by any application of the potassa fusa is not to be known, from the discoloration it immediately causes; its action is therefore uncertain,—perhaps in part owing to the different degrees of purity of the preparation: this is also a much more painful caustic than the nitric acid, even when both are pure. The employment of arsenic has been known to produce fatal effects by its absorption, when applied to a considerable surface: whereas, any escharotic, applied to a part only of a large ulcer, has been found to render it eventually worse; the newly deepened surface being always exposed to the irritating discharge from the diseased, and likely to resume its morbid character. The arsenic applied to a number of small ulcers successively, is a tedious remedy: to one, however, of a moderate size it may be used with success.

The two following cases exemplify the good effect of the nitric acid.

Elizabeth Truby, of Charlton, Worcestershire, aged seventeen years, of a fair and delicate complexion, applied to me, December the 14th, 1820, her face having the appearance here described:—the tip and alæ of the nose were much swollen, ulcerated, and partly incrustated by scabs of a dirty yellow colour; the surrounding integument was of a purple hue, which extended up the nose, partly over the left cheek, and to the upper lip; in the substance of which were two irregular scabby ulcers, giving it the appearance of a double hair-lip. From the whole ulcerated surface, as well as from the interior of the nose, there

was a copious discharge of thick white matter, which smelt offensive. The disease had existed four years, first making its appearance in the form of a small pimple, which ulcerated and gradually extended, till it bore the appearance above described. She had been one year and a half a patient in an infirmary, where she had taken a considerable quantity of medicine, and used various applications to the parts. It was three months since she had any menstrual discharge, and that to a very trifling extent, and for the first time. In other respects, her general health appeared tolerably good. I ordered her, as an alterative medicine, to take a tea-spoonful of the following drops three times a day, in a little water :—R. Hydr. Oxymuriatis, gr. ij. ; Spir. Ætheris Nit. ʒij. M. ; and to keep the sores constantly wet with lint dipped in the following lotion :—R. Liq. Arsenicalis, ʒij. ; Aquæ pur. ℥j. M.

December 18th.—The ulcers were rather cleaner, and of a less irritable appearance. The medicine at first made her sick, and occasionally purged her ; or, to use her own expression, “searched her a good deal.”

Dec. 21st.—The menstrual discharge had returned, and the discharge from the ulcers diminished, and become of a less offensive nature. She had two or three stools daily.

Dec. 28th.—No improvement, but the contrary. The discharge had increased, and the ulcers resumed their irritable and foul appearance. She was ordered to continue the drops ; and, in order to destroy the surfaces of the ulcers, to dress them twice a day with the following ointment :—R. Oxyd, Arsen. ʒss. ; Cerat. Cetacei, ʒvj. M. This application did not produce a slough, but excited a little inflammation around the ulcers, which became rather larger, as well as a serous effusion in the cellular membrane under the eyes.

January 4th, 1821.—Being fearful of increasing the quantity of arsenic, I painted the ulcerated surfaces over with strong nitric acid, and directed them to be covered with lint wet in the following—R. Acid. Nitrici, gr. l. : Aquæ puræ, ℥ij. M.

Jan. 8th.—The application of the strong acid had caused sloughs over every ulcer, and very considerable inflammation in the surrounding parts, which were much swollen, and so irritable, that the application of the diluted acid could no longer be borne ; a warm poultice of oatmeal and beer was, therefore, ordered to be applied over the greater part of the face.

Jan. 13th.—The inflammation and swelling had diminished, and a small slough had separated from the lip, leaving a healthy granulating surface. She was ordered to continue the poultice ; took no medicine.

Jan. 15th.—Another small slough had separated from the lip, which was now quite clean, and granulating healthily. Ordered to continue the poultice, and take one of the following powders twice a-day :—R. Hydr. c. Creta, 3j. ; Sodæ Subcarbon. 3ss. M. et div. in ch. xij.

Jan. 17th.—The sloughs had separated from the nose, leaving healthy granulations, and the ulcers of the lip had nearly healed. She was ordered to leave off the poultice, and again apply the nitric-acid wash, with a view of forwarding the process of cicatrization.

Jan. 22d.—Scabs had formed over the sores on the nose ; the poultice was therefore ordered to be applied, instead of the wash. The lip was quite healed, and she was desired to take one of her powders every night.

February 5th.—The outer surface of the nose was quite healed, but there was still a very considerable discharge from its interior ; to diminish which, she was directed to apply the following astringent lotion, both externally and internally, by means of plugs of lint :—R. Zinci Sulphat. 3ij. ; Plumbi Superacet. 3j. ; Aquæ puræ, ℥j. M.

Feb. 19th.—The discharge was much diminished in quantity, and the size of the nose considerably reduced. She was ordered to continue the powders and the lotion, but to weaken the strength of the latter by adding to it another pint of water. She persisted in the use of both for a month, when, the discharge having ceased, she left them off.

On the 1st of May following I saw her, when she had no other appearance of disease than that of the skin covering the lower part of the nose, and the upper lip, being of a deeper hue than the surrounding integument.

The following case, of which I made notes at the time, was a patient in Guy's Hospital, under the care of Sir Astley Cooper. It shows, in the most satisfactory manner, the excellent effects of nitric acid as a caustic.

Joseph Hester, aged eighteen years, was admitted into Luke's ward, Guy's Hospital, under the care of Sir Astley Cooper, on the 11th of July, 1821, with several superficial scabby ulcers situated on the sides of the face and nose, the largest being rather bigger than a shilling. They had existed for nine years, during which time he had almost continually been making use of some application or other, and had tried a great variety of these, as well as the exhibition of medicine, without any apparent benefit. He had been recommended to try the effect of sea-air, and for this purpose had resided fifteen months by the sea-side ; at which time he was ordered the occasional—indeed, rather

frequent,—use of the bath, together with those constitutional remedies which the nature of the case might seem to require. This plan of treatment was, however, unavailing, and the complaint consequently remained undiminished. At the time of his admission into Guy's, he was directed to take the following draught three times a-day :—R. Sol. Arsenicalis, gtt. v. ; Decoct. Cincho, 3j. M. ; and a poultice was ordered to be applied over the incrustations covering the ulcers.

On the 17th of July, the scabs being removed, the parts were painted over with undiluted nitric acid, and again poulticed. The application of the acid produced severe inflammation, attended with very considerable swelling of the face, pain in the head, and fever ; for which he was cupped on the back of the neck, and ordered an opening medicine, consisting of Epsom salts and mint julep, the effect of which was a very speedy removal of the pain ; the inflammation quickly subsided, and the swelling gradually diminished. On the 31st, the sloughs formed by the acid having separated, the zinc lotion was applied, the parts looking extremely healthy and disposed to cicatrize. On the 7th of August, the lotion was repeated, the sores looking very healthy, and having every prospect of being speedily healed.

August 10th.—Scarcely any appearance of disease remained. Sir Astley, however, deemed another application of the strong acid requisite, in order more effectually to eradicate this long-standing evil. It was applied, on the 11th, to the several parts where the ulcers had been situated, and afterwards a poultice. On the 13th, the face was much swollen, but there was no fever present to render medicine requisite : the common aperient mixture of the house, however, was occasionally taken. This poultice was continued till the 28th, when the sloughs had all separated ; the edges of the sores appeared tumidly thick ; the zinc lotion was ordered to be applied as before. From the time the lotion was applied the sores healed astonishingly fast. By the 3d of September they were all cicatrized, and there only remained a little swelling under each eye. The next presenting day he was ordered to be discharged.—*Lond. Med. and Phys. Journal.*

III. PATHOLOGY AND THERAPEUTICS.

MR. HOULTON *on the treatment of Intermittents.*

During the time that I had the care of a military hospital on the coast of Kent, intermittents were very prevalent amongst

the troops, and many cases proved extremely obstinate, resisting all the ordinary means of cure. In several of the protracted cases, I was induced to believe that the affection was maintained by habit. With this view, I had recourse to a continued local stimulus; and frequently the concatenation of diseased action was broken by this measure, and recovery effected. I generally ordered a small blister to be applied between the shoulders, on the approach of the cold stage, and to be repeated every six hours down the course of the spine, until after the time of the next expected paroxysm. I am disposed to attribute the benefit derived from the blistering more to its engaging the attention of the patient by its continued action, than to counter-irritation; for the cases here alluded to were not those in which there was evident visceral congestion. I am aware that Boerhaave has recommended rubbing the spine with oleum succini, but blistering I have not seen advised in this disease.

Another mode of treatment for intermittents, which I am disposed strongly to recommend, is cinchona, taken in a dry state, or rather swallowed without admixture with any extraneous fluid. In very many cases, both recent and chronic, and of various periods of duration, it has been singularly beneficial. The Medical Board of the Army, whose solicitude and exertions for the health of the soldiers, and whose prompt attention to every means calculated to benefit the sick, were ever conspicuous, suggested, that in those hospitals which were crowded with intermittents, a kind of gingerbread should be made, by mixing equal parts of powdered yellow bark and flour, spiced with ginger and carraway-seeds, and made up with the ingredients, and in the mode used for what is called thick gingerbread: of this a piece, the size of a walnut, was to be given a few hours before the fit was expected. One dose, in many cases, put a period to the disease; and in other cases, in which bark, given in the usual manner, had failed, it was followed by happy results. It was taken without any disgust; and so convinced were the men of its efficacy, that when our supply became short, they were ready to contend for it, and considered those favoured to whom it was given. I believe that bark, taken in this way, as it must be well imbued with saliva before it can be swallowed, to be less oppressive to the stomach, as well as more agreeable to the palate, than when given in substance in the common vehicles; and it deserves a trial in other diseases which require that remedy.—*Lond. Med. Rep.*

DR. MAXWELL'S Observations on Constipation.

Dr. Maxwell has confined his observations to Constipation arising from the following causes :—1st, Constipation of indurated fæces ; 2d, from intussusception, angular position of the intestines, and other visceral displacements, with ileus from spasmodic contraction ; and 3d, immobility of the bowels, from paralytic insensibility.

The first case detailed by Dr. M. is one of ileus from hardened fæces, and similar in some respects to the very instructive case published in our last number, by Dr. Chisholm. Having frequently used injections of warm linseed oil with much advantage in cases of this description, resulting from accumulation of hardened fæces ; the lubricity of this fluid allowing it to pass more readily than water, and its purgative quality being sufficient to excite a gentle action in the bowels, Dr. M. ordered the injection of it to the extent of three pounds, by means of a pipe provided with a shoulder, which, pressing on the anus, prevented regurgitation. During the injection the patient was placed on his right side, and the loins and hips raised on a pillow. When three pounds of oil were thrown forcibly up, the patient complained of distension, and the oil could not be retained above five minutes, though strong pressure was made upon the anus with a ball of linen—it was returned nearly pure. The enema, notwithstanding, was repeated every two or three hours, when two large lumps of indurated fæces were passed with the fourth injection. The next brought away three, and these were followed by free evacuations.

Case 2d.—The usual purgatives had failed in this as in the other case. A quart of warm oil was injected unsuccessfully ; a second was employed without effect, on the same evening ; and two drachms of laudanum in a little water were afterwards thrown up. This procured a little sleep, reduced the pulse, and improved the countenance ; and on the following morning the oil was again repeated to the extent of three pounds, without any sensible effect, except on the vomiting, which became less frequent. In the evening the oil was again repeated to the extent of two quarts ; this injection brought away a few indurated lumps of fæces. After this, the repetition of the same means procured free and copious evacuations.

Dr. Maxwell remarks, that it is a mistaken idea, that the valvular structure at the end of the ilium and beginning of the colon, can prevent the progress of injections. When a large quantity of fluid is to be forced up by injection, he recommends the patient to be placed in a posture that will allow the bowels

to hang at nearly right angles with the spine. He believes that, in a healthy state of the intestines, by attending to posture, any quantity of water may be made to pass from the anus to the mouth. In a patient labouring under colic, he threw up, "three and a half gallons of warm water, accurately measured, before it reached the stomach."

For the second proximate cause of constipation and ileus, Dr. Maxwell considers that there is very little chance of removing it by means of purgatives or watery injections; but that inflation may be employed with the best effects. In proof of this position he details four cases of its success. The first was a man aged forty-three. After performing the operation for strangulated hernia, the bowels could not be moved by cathartics or by injections. A piece of cork, nearly flat, was placed on a male catheter, at three inches from the point, which was introduced into the rectum. The patient being placed on his back in bed, and the cork pressed firmly against the anus, the bowels were gradually inflated; the top of the catheter being stopped with the tongue during inspiration. When the air had occasioned considerable distension it was readily expelled, but nothing followed. Considering that in this attempt the sudden distension of the colon might, by pressing on the ilium, prevent the air from entering it, he resumed the operation, blowing more slowly, and, with the left hand, pressing the air forward along the colon into the ilium. When the distension began to give much pain, the air was allowed to escape, and, in about an hour, it was followed by copious soft stools. The patient walked out on the fifteenth day after the operation.

A child, aged four years, whose bowels had been constipated during nine days, the operation of inflation was soon followed by free evacuations. In this, and in two other cases which Dr. M. relates, purgatives, with enemata, blisters, and frequent warm-baths, had been employed without success. This operation, Dr. M. informs us, has been resorted to by him in seven other cases, and with invariable success.

For the third cause of constipation which Dr. M. mentions, he recommends electricity; and relates two cases of its successful employment, after other active means had failed.—*Med. Repository.*

DR. CHISHOLM'S Case of Ileus.

I was desired by my friend Mr. Beet, Surgeon, at Ashford, to meet him at the house of Mr. B., distant about four miles from

Ashford, on the 28th of August, 1822, late at night. I found the case to be obstruction in the bowels. The usual means were resorted to with considerable energy, viz. blood-letting, warm baths, purgatives, enemata, &c. &c. but without affording relief. On the 29th, the obstruction still continued, and the above plan, to its fullest extent, was again tried, but without effect. On the 30th, I found, on visiting Mr. B., that the extremities were cold, and that stercoraceous vomiting had come on. As I had considered the case from the beginning to be one of *introsusceptio*, I desired that a strong solution of the common yellow soap should be prepared; of this tepid solution more than a large wash-hand basinful was gradually, but perseveringly thrown up, by means of Read's injecting machine, and retained, by applying napkins to the anus, as long as the patient could bear the distention, which resembled that of ascites or nymphanites. When the latter part of the injection came away, we had the gratification to find it tinged and mixed with stool. The patient shortly after passed wind and a motion; all the bad symptoms vanished, and he was well in three days. I have had many other cases where Read's machine was of infinite service, and I think every medical Practitioner should have one in his possession.—*Lond. Med. Repos.*

DR. PRICHARD on the use of Issues in disorders of the nervous system.

Some cases have occurred, chiefly at St. Peter's Hospital, in which issues have appeared remarkably useful in epilepsy. Setons in the neck are commonly resorted to in this disease, and I have related or collected a variety of instances in my treatise on Disorders of the Nervous System which exemplify their effect. But in the cases I now refer to, more extensive drains were used; issues were formed over the sacrum or in the loins, by means of caustic, and kept open by inserting rows of peas. In several cases of uterine epilepsy treated in this way, the return of the fits was either totally suspended or very much lessened. In one case, as long as the drain was kept open, the fits occurred very rarely, and then in the form of slight attacks resembling hysterical fits, without loss of consciousness: the patient, who was a young girl, went out of the hospital, and the drain was healed up. The disease returned with its original severity, and it was again relieved on a renewal of the issue. Eventually, the patient recovered her health entirely.

When the seat of disease is within the encephalon, it seems most likely that benefit will be afforded by drains near the head. Accordingly, it is customary to apply setons in the nape of the neck ; and every Practitioner knows that this is often done with great advantage. In very many instances I have seen the best effects follow from an issue in the scalp itself. This remedy has been very serviceable in cases of severe headach and vertigo, attended with the signs of vascular fulness in the head, after many other measures had been tried in vain. In many instances of hydrocephalus I have seen the disease, to all appearance, cured by it ; at least it was the remedy principally relied upon in cases which terminated favourably ; and Dr. Bernard, of Clifton, who has been accustomed for many years to prescribe this remedy in hydrocephalus, assures me, that in every case in which it has been applied under his observation, unless when the disease was too far advanced, or its progress too rapid to allow sufficient time for the establishment of a purulent discharge, the complaint has been removed. Issues in the scalp may be formed in two different methods ; either by the application of a caustic, as the potassa cum calce, which, if not very carefully done, is apt to occasion a great deal of mischief by injuring the scalp ; or it may be done by an incision over the sagittal suture, which may be filled up with a row of peas, and this can never give rise to any bad consequences. The remedy is certainly, under any form, a disagreeable one, and will only be adopted in severe complaints ; but in such I am confident that it may often afford an effectual resource, when no other means are capable of arresting the progress of disease.

With respect to the use of issues near the spine, in cases where the disease is seated in the encephalon, I admit that the practice does not seem, *a priori*, to be particularly indicated ; and yet I once met with a case of this description, in which so much benefit seemed to arise from an accidental discharge taking place from a sloughed spot on the sacrum, that I have always been tempted from that time to believe such a remedy efficacious. The case I allude to was one of sudden and complete amaurosis, which terminated in recovery ; and as the circumstances of it are interesting, I shall conclude this paper with a brief account of it.

Elizabeth Rowland, aged thirty. Admitted in-patient at the Bristol Infirmary March 20th, 1817. Five weeks ago she was delivered of an infant, which she suckled. About five days ago she began to lose the use of her lower extremities, which gradually increased, and she is now paralytic. About two days afterwards she lost entirely the sight of one eye, and last night she

became blind in the other. At present she cannot perceive light, though the rays of the sun have been admitted directly on her eyes, nor do her pupils contract in any perceptible degree. She cannot pass her urine. Pulse full and quick. Tongue white. Bowels obstinately costive.

The remedies employed were bleeding, cathartics, and blisters.

On the 23d of May, she complained of vertigo and headach, for which she was again bled. She had frequent returns of the symptoms of vascular fulness in the brain, until a large slough which formed on the sacrum, in consequence of lying on the back, occasioned a profuse and long-continued discharge. Her disease had given way, in many respects, to the previous remedies; but before this discharge ceased, which was so copious that it was necessary to allow her full diet, she recovered not only the use of her limbs, but a tolerably perfect sight, and was, after some time, discharged cured.

MR. WARD'S cases of *Aneurism of the Aorta.*

The three following cases of aneurism of the aorta occurred within a very short period; they evinced many of the symptoms of cynanche laryngea when it assumes a chronic form, and sufficiently proved the difficulty of diagnosis between these two disorders. As every circumstance that can throw light on so interesting a subject as aneurism of the aorta most assuredly is, must be acceptable to the pathologist, I am induced to place the particulars of these cases before the Profession.

CASE I.

Mary Jones, ætatis twenty-three, applied for relief December 11th, 1822. She had been ill four months; her complaints commencing with cough and expectoration, which were worse at night, being unable to lie down for some hours. At this date she perspired very freely, which she attributed to the exertion of coughing, and complained of pain in the trachea just above the sternum, which was greatly increased by deglutition, solid substances always being returned: fluids were swallowed easily. Her face was sometimes flushed. Pulse 96; bowels costive; urine plentiful, high coloured, and depositing a lateritious sediment; feet very cold.

She received constant medical attendance till her death; her symptoms, notwithstanding, remained for the most part unrelieved. She was purged; leeches were frequently applied to the

throat ; blisters were employed ; and the ung. antim. tart. was resorted to till it produced a pustular eruption, which afforded her some little benefit. In the course of her illness, she had three or four sudden attacks of dyspnœa, which threatened her life ; they appeared to be produced by a large collection of mucus in the bronchial tubes : when in this state, she always experienced much relief from emetics.

June 4th.—Complained of pain and fulness above the right clavicle, but no pulsation was felt there : these sensations were relieved, and appeared to subside, in consequence of the application of a few leeches.

July 2d.—From irritation produced by a blister, inflammation came on under the left breast, which terminated in suppuration, during which time, until the abscess healed, there was a complete cessation of all the bad symptoms ;—her breathing was very comfortable ; she could lie down at night ; and the mucous expectoration was much diminished. As she now felt herself much better, she very incautiously over-exerted herself, when all the symptoms became aggravated : respiration was now performed with difficulty ; her lips and countenance were of a pallid hue ; the mucus in the trachea became increased in quantity, and was expectorated with difficulty, and cold sweats supervened. This state continued for a few days : she sank under it on the 6th August, 1823.

Dissection.—On examination of the body, the following appearances presented themselves :—No disease was observed in the larynx. The trachea, just above the bronchiæ, was so completely compressed by an aneurism, as to bring its anterior and posterior sides nearly into a state of approximation. The lining membrane of the trachea presented a red blush, without any evidence of suppuration.

The aneurism was of considerable magnitude, and arose from the arch of the aorta, having a sulcus in its centre filled by the trachea. There was another aneurism in the aorta, where it passes between the crura of the diaphragm, which had produced much absorption in the bodies of three of the vertebræ.

CASE II.

John Berry, ætatis thirty-four, has been ill twelve months. He was taken at first with cough and shortness of breathing. The cough was very troublesome, and without expectoration.

August 5th.—At this time he had very considerable wheezing during inspiration, which was occasionally accomplished with much difficulty. He also complained of some pain in his chest ; of very difficult deglutition, being altogether unable to swallow solid food ; and even fluids were taken with much uneasiness.

He had been unable, for the last six weeks, even to sit up, being obliged to bring his head forwards, resting it nearly on his knees: raising himself into the erect posture only for a few seconds caused him the greatest distress. His voice was scarcely altered.—Ten leeches were ordered to his throat, and the pulv. ipecac. comp. was given with hydr. subm. in small doses every six hours.

August 6th.—Remained nearly as yesterday. Towards the evening, the dyspnœa being much increased, it was thought he might receive some benefit from the operation of tracheotomy, which was accordingly performed. At the time of the operation, he lost a considerable quantity of blood suddenly from some varicose veins, and he was somewhat relieved. This relief continued, however, but a short time, as all the evil symptoms gradually increased. He was unable to keep a canula in the opening, it being constantly forced out.

August 7th.—Much worse; dyspnœa greater. He was unable to swallow any thing. His pulse, which formerly was rather full and not much accelerated, now faltered, and on the following morning he died.

Dissection.—On examination, an aneurism was found in the arch of the aorta, occasioning much pressure on the trachea immediately above the bronchiæ. The aorta was much enlarged throughout its whole length. The lining membrane of the trachea was discoloured and covered with mucus. Somewhat extensive inflammation was present in the cellular substance of the muscles of the neck, on the right side, which was attended with a large deposition of coagulable lymph.

CASE III.

August 5th.—William Friar, ætatis thirty-one, had been ill about six weeks. He was first affected with pain in the left side of his chest, which came on, as he supposes, in consequence of a severe cold. He afterwards felt a general soreness in his chest, with a sense of suffocation. His breathing became difficult, and inspiration very stridulous. His speech has been impaired about three weeks. He was, at this time, unable to speak above a whisper; had no pain in the larynx itself, but considerable pain lower down, about the centre of the chest; was unable to swallow solids, and fluids passed with difficulty. Cough was troublesome; expectoration much, and at times with difficulty; tongue slightly coated; bowels open; sleep disturbed by distress in breathing. The pulse in the right arm was scarcely to be felt; in the left arm it was nearly natural.

He was bled to the extent of sixteen ounces; a blister was

applied to the throat, and calomel and Dover's powder were given every six hours.

August 6th and 7th—Twelve leeches were applied each day, and a blister between the shoulders. He remained unrelieved.

8th.—He fell down dead in the act of walking.

Dissection.—The first remarkable circumstance which presented itself on examination, was the right carotid artery crossing the trachea immediately below the cricoid cartilage, it being thrust into that situation by an aneurism from the arch of the aorta. The aneurism pressed on the two bronchiæ, and upon the œsophagus, into which it had ulcerated and burst; and about two pounds of coagulated blood were found in the stomach. The ulceration in the œsophagus was to a very considerable extent. The larynx was healthy.

Remarks.—From these three cases, it appears that an aneurism in the aorta may produce, from its mechanical pressure, a train of symptoms which bear a very close analogy to cynanche laryngea. In the first case, the continual existence of the exciting cause induced that state of inflammation of the membrane, which we should naturally expect to find in this latter disease. When we observe that the application of a few leeches was sufficient to relieve the urgency of these symptoms, we should hardly have been inclined to think beforehand that there existed any arterial tumour, upon which this small bleeding could have had such an effect. The relief too which was experienced by the counter-irritation in the breast would have tended, in a great measure, to confirm the opinion that it did not depend on any mechanical cause which was constantly present, but upon an inflammatory action originally existing in the membrane itself.

The second case, however, does not bear so great a similarity to cynanche laryngea. There were symptoms which might perhaps have led us to a different diagnosis: the difficulty of keeping the head erect, and the unimpaired power of the voice, are not symptoms which we are accustomed to find present in cynanche laryngea, but which were satisfactorily explained by the examination of the body.

The third case more nearly resembles cynanche laryngea than either of the others; the stridulous inspiration was better marked, as well as the loss of voice and the difficulty of deglutition. In this case there existed a circumstance which, perhaps, may not be altogether undeserving of remark. The operation of tracheotomy was directed to be performed, if this man had suffered a sudden attack of excessive dyspnœa. His sudden death, however, prevented the operation. It was mentioned, when detailing the appearances on dissection, that the right carotid

artery was found crossing the trachea obliquely, and immediately below the cricoid cartilage : if, therefore, the operation had been performed, it is not improbable that this artery would have been opened into, more particularly when we consider that the violent action of the trachea would render it difficult to have observed the pulsation of the artery in this unnatural situation.—*Lond. Med. Repository.*

DR. PRING on *Hæmoptysis.*

The pathology of hæmoptysis furnishes two important practical distinctions,—namely, hæmoptysis with, and without buffed blood. If blood taken from the arm, in cases of hæmoptysis, is buffed, the local disease tends to rapid disorganization ; and, unless arrested by treatment, terminates speedily in consumption. If in such cases the blood is not buffed, there is no immediate danger of consumption : the only danger is from hæmorrhage, and this danger is not trifling. The most inconsiderable spitting of blood is always a symptom which requires great attention. If a small vessel of the lungs is ruptured, it proves a disposition in the vessels to this effect, and there is no security but that a large one may next give way. A young man, about twenty years of age, had a pain in his side, and sometimes expectorated a very little blood. He took no notice of these symptoms, and continued his work as usual. One morning he returned from his accustomed labour, and, while at breakfast, a copious hæmorrhage from the lungs took place : I was immediately sent for, and arrived at the house in a few minutes ; but the young man was dead before I got there. The floor was covered with blood, and it appeared that the rapidity with which the effusion of this fluid had taken place had produced suffocation.

In hæmoptysis with buffed blood, the symptoms cannot be too rapidly subdued by antiphlogistic means. Bleedings of sixteen or twenty ounces, calomel, active saline purgatives, full doses of nitre, squill, ipecacuanha, emetic tartar, &c. and a diet of cold gruel, tea, barley-water, &c. should be employed in the beginning, together with perfect repose. If the case becomes chronic, small bleedings, as a collateral treatment, are advantageous, together with nitre, and constant purging by Epsom salts. I have ample reason for thinking the repetition of large bleedings prejudicial ; and a treatment in which blood-letting is made the only remedy, altogether inadequate. I have known all the

symptoms cease in these cases, and the blood has no longer exhibited fibrine, when the calomel, which was given in doses of three grains every night, followed by salts and senna the next morning, has affected the gums. I have known also the coagulation of the crassamentum gradually weakened, and the exhibition of fibrine cease, under a treatment by a grain of acetate of lead three times a-day, in combination with a full dose of squill and a small one of digitalis : the saline purgatives, and occasionally calomel, have also been employed at the same time.

If the blood is not buffed in hæmoptysis, the immediate danger arises from hæmorrhage ; but a portion of unabsorbed coagulum will, it is currently believed, at a remote period, form the nucleus of a tubercle : this will be followed by fever, local disorganization ; and in this state, as I believe in every other case of consumption, the blood will be found buffed.

The best treatment of this form of hæmoptysis is also, so far as my experience has gone, to subdue the symptoms by smaller bleedings than in the former cases, by saline purgatives, nitre, squill, ipecacuanha, emetic tartar, &c. and occasionally calomel as a purgative, not frequently repeated. In this case, in which there is no inflammatory action to be subdued, I have no reason to think that any thing would be gained by mercurial affection : on the contrary, it may convert hæmoptysis without fever into that febrile form in which buffed blood would most probably be exhibited. Repose, with a vegetable diet, and that nearly cold, with a temperate atmosphere, are also necessary in this simple form of hæmoptysis. I have known the chest covered constantly with cloths dipped in cold vinegar and water ; but, from experience, I have no reason to think this practice beneficial, and, from principle, I should not be inclined to anticipate from it any good results. I once knew a case of pneumonia treated by cold applications to the chest : the boy, who was about fourteen years of age, died ; and certainly with a moderation of symptoms, from which I should not apprehend much danger under the ordinary treatment."—*Principles of Pathology*.

Cases of Deafness and Dumbness. By J. H. CURTIS, Esq.

I have repeatedly observed the advantages that result from a professional character limiting his practice to one class of diseases chiefly ; and daily experience convinces me more and more of the nice discrimination he thus acquires in the distinction of them, provided that his views be founded on a knowledge of

the operations which take place in the animal economy, and that he take into consideration the nature of the various derangements in which these particular diseases originate, and with which they are frequently associated.

By Surgeons in general, no cases are more frequently given up in despair than those of deafness and dumbness. They are, generally, congenital, or the effect of acute disease, occurring at an early period of life. This latter cause of their origin should lead us more frequently to attempt the removal of them than is usually done, and should, at the same time, give us greater hopes of success from our attempts, than if the defect were one resulting from organic malformation; a cause which is much more unfrequent than is commonly supposed. Amongst the more recent cases which have come under my care, the following may be found interesting.

Case 1st.—George Hemmings, aged eighteen years, was admitted a patient at the Royal Dispensary for Diseases of the Ear, on the 2d of May last. This young man lost his hearing and speech at five years of age, in consequence of an attack of inflammatory fever. On examination, I did not perceive any organic defect, but, from the importunities of his friends, I was induced to give his case a fair trial. I began by dissolving the secretion, afterwards having the ears well syringed,—circumstances which, although apparently simple, are of more importance than is frequently supposed; I then had recourse to blisters behind the ears, which were kept open two months. In addition to these local means, a slight course of alteratives was administered, to rectify some constitutional derangement, as indicated by the tongue and state of the primæ viæ. As there appeared a defect in the natural secretion, I introduced stimulant applications into the meatus externus, from which I found a visible alteration in the appearance of the secretion; and soon after, this was followed by his being sensible of the appulses of sound; and I am happy to state, that, after being deaf and dumb thirteen years, he is now able to hear and speak. The first word he uttered since his illness was ‘mother,’ which took place on the 21st of last April.

Case 2d.—Mary Ann Hague, aged four years and a half, lost her hearing and speech at two years old, from an inflammatory affection of the brain. By persevering in the treatment detailed in the preceding case for upwards of twelve months, she has also obtained hearing and speech.

Case 3d.—William Smith, a very interesting child, four years old, born deaf and dumb, was admitted a patient at the Dispensary, May 22d, 1821. By pursuing the same treatment since

his admission, as employed in the foregoing cases, he is now able to hear, and speak many words.

These cases will show that, however forlorn matters may appear, they should not be regarded as irremediable, under such circumstances, as is the usual practice.—*Lond. Med. Rep.*

Case of Encysted Tumour. By GEORGE GREGORY, M. D.

Sarah Court, thirty-six years of age, a widow, of spare habit of body, became a patient at the St. George's and St. James's Dispensary, on the 3d October, 1823. On her admission, she complained of considerable pain throughout the abdomen, constant, attended with frequent discharges of wind, and much weakness of the legs and thighs. Pulse quick; tongue foul; alvine evacuations regular; the catamenia had been absent for three years. Her present complaints were described as of four months' standing, and as becoming gradually worse. During the whole of this period, she had been subject to paroxysms of severe pain in the abdomen, recurring every three weeks, lasting for a few days, and relieved, for the most part, by a free discharge of flatus. On examination, the lower part of the abdomen appeared to be occupied by a firm swelling, which, though it gave no sense of fluctuation, was imagined to arise from some enlargement of the ovarium. The patient distinctly stated, that she could not refer its origin to either side in particular. She ascribed her complaints to extreme fatigue in her occupation as a washerwoman. Some warm aperients, that were directed, procured her some relief.

On the 14th October, I was requested to visit her at her own house. I found her suffering under an attack of severe pain of the abdomen, which was enlarged, tense, and very tender on pressure. She passed flatus in great abundance, but without any relief. She complained, also, of considerable difficulty of breathing, aggravated by the recumbent posture. Her tongue was loaded; the pulse quite imperceptible at the wrist; her bowels obstinately constipated. Cathartic medicines were freely administered, which procured several evacuations, and with them some slight relief. On the 16th, the symptoms recurred with great violence. The only position in which she could remain with any tolerable comfort, was kneeling by the side of the bed. Leeches were now applied to the abdomen, and fomentations renewed. Clysters, containing oil of turpentine, were thrown up; and to the medicines which she had previous-

ly taken were added the tincture of hyoscyamus, with very full doses of opium. By these means partial relief was obtained. On the evening of the 20th, the pulse having become more distinct, twelve ounces of blood were taken from the arm. The blood appeared cupped and buffy; but this measure procured for her only an hour or two of ease, while it materially diminished her general strength.

Fluctuation had been indistinctly perceived for some time, and, on the morning of the 21st, finding that all the plans of treatment hitherto devised had failed in obtaining for her any permanent benefit, I decided upon trying the chance of relief which the operation of tapping presented. Mr. Jeffreys introduced the trocar below the umbilicus, and about five pints of a transparent, brownish-coloured fluid were slowly drawn off. It was evident, during the operation, that some firm tumour was continually preventing the escape of the water; and no doubt could be entertained that the trocar had only penetrated the peritoneum lining the abdominal parietes, and that we had evacuated only that sheet of water which lay between it and the tumour. The degree of relief afforded by the operation was transitory and trifling. The patient suffered greatly by flatus the succeeding night, and opium now afforded the only solace which her medical attendants could devise. She sank rapidly after this, and died late in the evening of the 29th October, after experiencing for more than a fortnight, and almost uninterruptedly, the most excruciating pain I had ever witnessed.

The body was opened the following day, sixteen hours after death, by Mr. Jeffreys, in presence of Dr. James Johnson, myself, and a number of gentlemen whose attention had been attracted by the singular violence and remarkable character of the symptoms.

On dividing the abdominal parietes, a large firm tumor, of a black colour, was brought into view, attached by slight, and probably recently effused, bands of coagulable lymph, to the peritoneum lining the abdominal muscles. These adhesions were less firm towards the posterior part, so that, after separating the tumour from the parietes of the abdomen, it readily turned out, as the yolk of an egg separates from the white.—This tumour occupied nearly the whole of the abdominal cavity from the ensiform cartilage to the pelvis, and was every where of a very dark colour, almost black. When cut into, it was found to contain a large quantity of a thick, fetid, chocolate-coloured fluid. The walls of the cyst were of unequal thickness: in many parts they were not less than two inches thick. Its external surface was every where smooth, making allowance

for a loose covering of coagulable lymph. The internal surface of the coats of the cyst was rough and irregular. Its texture was throughout soft, spongy, and rotten ; and, by many gentlemen present, was compared to that of a putrid placenta. Its whole weight, including that of the contained fluid, may probably have somewhat exceeded twelve pounds.

The uterus and its appendages were now cut out, and carefully examined. Both ovaria were found in a perfectly healthy state ; and the uterus itself was free from disease.

The tumor being removed, gave us an opportunity of seeing that the peritoneum covering the bowels, liver, and other viscera, was every where of the same dark colour as the surface of the cyst ; and it was in all parts covered with the same shreds of coagulable lymph as were witnessed in the tumor. The intestines were loosely glued together, and their coats appeared preternaturally thickened. The liver internally was of an ash-colour, and unhealthy texture. The stomach was not more than usually distended.

The heart and lungs were free from all traces of disease.

IV. MATERIA MEDICA AND PHARMACY.

M. NANI on the Vegetable Alkali from Rhubarb.

Six ounces of rhubarb, in powder, were boiled for two hours in eight pints of common water, with four drachms of sulphuric acid ; this was filtered, pressed, and the residuum reboiled with six ounces of water and two drachms of sulphuric acid ; the fluid being again separated, the residuum weighed but two ounces. The united infusions were mixed by degrees with three ounces of quicklime, and from being yellow they became of a blood-red colour ; after standing for a day, the precipitate was filtered out, dried in the sun, and weighed six ounces. It was then digested at a high heat, with four pounds of alcohol S. G. .837 for two hours, filtered, and again digested with two pounds more of alcohol, which, when separated by a second filtration, was added. Being put into a retort, five pounds of the alcohol were distilled off, and the rest of the liquor carefully evaporated to dryness. The residuum weighed two drachms, was of a red brown colour, with brilliant points throughout. Its taste was sharp and styptic. It was soluble in water, and its odour like that of rhubarb. This preparation is recommended in pharmacy as being of constant quality, of convenient solubility in water, and deprived of

its inert and ligneous matter ; one or two grains are said to be sufficient for a dose.—*Journal de Pharmacie.*

MR. SPRAGUE on the medical properties of *Rhatania*.

It has been said by the Practitioner to whom the Profession is principally indebted for making it known in this country, that this root is known in Peru, from which it is imported, under the names of *rhatania* and *rhatanguia*. "It seems evidently the root of a shrub, and, in external appearance, resembles the *rubia tinctorum* more nearly than any other substance with which we are acquainted. Though introduced but a few years in this country, it has been for many years collected in the district of Lima for the use of Portuguese merchants, and employed by them for the purposes of improving the colour, astringency, and richness of red wine. The part in which the medical qualities reside is of the size of a goose's quill, which ramify in the same manner as the madder root ; the cortical part, in which its sensible qualities predominate, is very thick, breaks short, and is resinous. The ligneous part is tough and fibrous, and somewhat mucilaginous. Sensible qualities.—On being slightly masticated, the root discovers a very grateful astringency, which leaves a lasting impression on the palate, and is slightly aromatic and bitter, and very productive of extractive matter. These qualities are imparted, as well as its colouring matter, both to cold and boiling water, and to proof spirit. From the sensible qualities of this root, and its constituent principles, discovered by chemical investigation, its power as a tonic medicine, independent of any other proof, will stand evinced to every discerning Practitioner." And I am desirous of stating, that that celebrated teacher of medicine in Guy's Hospital, the late Dr. James Curry, informed me that he found its tincture exceedingly efficacious in diarrhoea, and preferred it to catechu, as being a more agreeable astringent than any contained in the London Pharmacopœia. He also considered it very efficacious as a tonic : but, like many other valuable medicines, its virtues have not met with that discriminative attention it deserves.—*Lond. Med. Repos.*

DR. BURNETT on the effects of the vapour of Quicksilver.

A very curious and interesting account is given by Dr. Burnett, one of the medical commissioners of the navy, of the effects produced on board a King's ship by the bursting of various vessels containing quicksilver, by which that substance became dispersed all over the vessel. In the space of three weeks, two hundred persons were affected with salivation, ulcerations of the mouth, accompanied, in many instances, with partial paralysis and bowel-complaints. Almost all the live stock on board were likewise affected, consisting of sheep, pigs, goats, poultry, mice, cats, a dog, and a canary-bird. The vapour was very deleterious to those who had any tendency to pulmonic affections. Only two died from the ptyalism, gangrene having taken place in their cheek and tongue : they had previously lost all their teeth. In the case of a woman who was confined to bed in the cock-pit with a fractured limb, not only were all the teeth lost, but many exfoliations also took place from the upper and lower jaws. The mercury showed effects upon the ship herself, by the decks being covered with a black powder, in which, however, quicksilver was never discovered in a globular state.—Several tons of this metal had escaped from its packages, and became diffused through the ship, by the constant motion of which it had become oxydized, and probably impregnated the atmosphere of the vessel with mercurial vapours. It is of importance to know that sulphur, given internally in large quantity, had no effect in relieving the symptoms, but served to aggravate the derangement of the bowels, and to bring on tenesmus : its external application was especially unavailing. The only plan which produced effectual relief was removal from the ship, with the frequent use of small doses of neutral salts and detergent gargles.

“ Various opinions were entertained of which opinion in which the systems of the sufferers were brought to that influence of the mercury. By some, it was thought that it would originate from the use of the bread and other articles in which the mercury had mixed itself ; and to support this opinion was this opinion carried, that I find, by reference to the documents in the Victualling Office, 7,940 pounds of bread were condemned as unserviceable from having quicksilver mixed with it.

“ By others, amongst whom was Dr. Man, the surgeon, it was considered to have arisen from the atmosphere ; and, from the preceding facts, I think there can remain no doubt that this opinion is the true one.

"It is well known that mercury, in its native state, has often been administered in very large doses, in cases of obstinate constipation, without producing any specific effect on the system; merely removing the affection by its specific gravity. I have, however, reason to believe, from the accounts of Orfila and others, that if the mercury was to be retained in the intestines for some time, and thus subjected to the action of the contents of the stomach and bowels, a part might become oxydated, and, being conveyed into the system by means of the absorbents, would there show its specific effects.

"But, after the removal of the provisions, &c. at Gibraltar, many fresh cases occurred, and many relapses, amongst those who had been cured out of the ship, took place on their return to duty on board, which effectually destroys the probability of this having been the cause of the succeeding ptyalism, and other morbid affections.

"It only remains for me to offer my opinion of the manner in which the system became saturated by the mercury, and this I conceive to have been effected by inhaling the mercurial vapours; the quicksilver, being then in the most perfect state of division, was readily taken up by the absorbents of the lungs, and soon showed its influence on the system generally. This idea is very much strengthened by the effect which was produced on the animals on board, already mentioned, as well as by the circumstance of a great number of men being attacked after the ship was cleared at Gibraltar, and till she arrived in a more northern latitude.—*Lond. Med. and Phys. Journal.*

MEDICAL LITERATURE OF THE

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ART. I. *On the History of the Marsh Poison*, By
WILLIAM GUSON, M. D. F. R. S.

This paper is taken from the transactions of the Royal Society of Edinburgh, and it contains a valuable addition to our stock of information, respecting the history, properties and sources of Marsh Poison. It furnishes, to use the language of Dr. Ferguson, such a "multiplication of matter and illustration," that it would be impossible to give it further without doing great in-

justice to the subject. As the result of a pretty extensive, and apparently faithful investigation of the localities and progress of yellow fever, Dr. Ferguson concludes, that, however rapid and appalling may be its epidemic current, it is not, and cannot, any more than the common ague or remittent fever, be in the smallest degree contagious.

ART. II. *Thoughts on Animal Heat.* By N. CHAPMAN, M. D.

In this paper, Dr. Chapman has investigated the chemical theory of animal heat, and from a review of the grounds on which it is placed, he considers it extremely vulnerable, and moreover, that no one position it involves is satisfactorily established. By Mr. Hunter it was long since proved that animal heat is not necessarily dependent on respiration, and succeeding physiologists have pointed out its dependence on the nerves, but the facts, in favour of any theory which has been advanced, are too scanty to gain our entire confidence. Dr. Chapman has therefore wisely contented himself with clearing away the rubbish, and preparing the site, leaving it for others to erect the superstructure.

ART. III. *Report of Diseases, &c.* By THOS. HENDERSON, M. D.

This paper furnishes a report of the diseases which prevailed in Georgetown, during the years 1820 and 1821. To this species of Medical writing we have already expressed our predilection, and we take pleasure in referring our readers to Dr. Henderson's valuable paper for information of more than ordinary interest.

ART. IV. *Comments on Comparative Phrenology.* By B. H. COATES, M. D.

It is sufficient for our purpose to say, that Dr. Coates is a defender of the phrenological faith, and that the main object of this paper is to expose the heresies of those who will not believe.

ART. V. *Case of Rupture of the tunica in my testis, which for some time I am attempting to reduce an old luxation of the testis.* GIBSON, M. D. &c.

The bone had been dislocated, and vertebral, and difficulty it was reduced.

After the reduction there was much irritation of the subject, by some about the deltoid and pectoral muscles, which I think it worth while to detail. In the following evening expired, and the axillary artery had been separated from its connexions. The dissection was unusually rapid, and when cut, exhibiting detail of the articulation of the

unfortunate issue of this case deter us from pursuing the same practice in future. Dr. Gibson answers this question in the negative.

ART. VI. *Case of Imperforate Anus.* By JOHN T. SHARPLESS, M. D. of Philadelphia.

This was a case of imperforate, successfully treated by an operation.

ART. VII. *On the utility of Charcoal in Constipation of the bowels.* By W. C. DANIEL, M. D.

In a former number of the Philadelphia Journal, Dr. Daniel recorded several cases of constipation successfully treated with Charcoal. In this paper he has recorded another case for the purpose of more fully establishing the propriety of the practice.

ART. VIII. *Case of Pulmonary Disease attended with anomalous symptoms.* By S. JACKSON, M. D.

In this case Dr. Jackson believes there "was originally a circumscribed inflammation of the superior lobe of one of the lungs, which terminated in a vomica—that the contents of the vomica, instead of escaping by the bronchiæ, must have found their way under the clavicle into the cellular membrane, giving rise to the emphysematous condition of the neck, face and trunk. The symptoms of cynanche laryngea, or croup, were probably occasioned by the irritation in the vicinity of the larynx, produced by the passage of the pus in that direction, being extended to that organ."

REVIEWS.

ART. IX. *The Works of Hippocrates.*

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ART. I. *On the NY other yd Histor Anatomy.* By W. E. HOR-
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